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CONTENTS

	PAGE
India's Monetary Muddle—by Mr. B. P. Adarkar, M. A.	1
Co-operative Evangel—by Mr. V. N. Mehta, I. C. S.	24
The Improvement of Pastures in India—by Sam Higginbottom, M.A., D.Phil.	25
Land Improvement and Alkali Land Reclamation—by Professor N. R. Dhar, D.Sc.	30
A Practical Scheme of Rural Reconstruction in U. P.—by Mr. Dayashankar Dubey, M.A., LL.B.	40
The Zamindari System—by Mr. Lalla Ram Tewari, B.A., LL.B. ...	48
The Way to Prosperity—by Mr. J. K. Mehta, M.A.	54
Better Cattle, More and Better Milk—by Dr. Sam Higginbottom, M.A., D.Phil.	57
The Problem of Federation in India—by Mr. Gauri Shankar Chatterji, M.A.	62
Principles of State Responsibility in International Law—by Mr. K. R. R. Sastry, M.A., M.L.	69
Pandit Jawahar Lal's View of Life—by Mr. N. C. Mukerji, M.A. ...	76
University Education in India—by Prof. Gurmukh Nihal Singh ...	80
Graduate Unemployment—by Dr. Hadi Hasan, M.A., Ph.D. ...	88
The Study of Foreign Languages in Europe, with Special Reference to Indian Languages—by Dr. Dharendra Varma, M.A., D.Lit. (Paris) ...	93
The Place of Psychological Tests in Education—by Mr. R. N. Vaishnavi, M.A.	106
Plato's System of Education—by Mr. Razauddin Ahmad, B.A., B.T. ...	120
A Plea for Rural Literature—by Mr. Satya Prakash, M.A., LL.B. ...	124
The Bhaskara School of Vedanta—by Dr. Umesh Misra, M.A., D.Litt. ...	127
Crabbe—by Mr. Bene Simlai, M.A.	158
A Note on Modernist Poetry—by Mr. Bhawani Shankar, M.A. ...	183
D. H. Lawrence and His Poetry—by Mr. R. N. Deb, M.A.	189
The Idea of Sin in the Urdu Ghazal—by Mr. Raghupati Sahai, M.A. ...	207
Upper-Air Researches by Sounds from Explosions—by Dr. R. N. Ghosh, D.Sc.	225
The Factories Which Control Our Lives—by Mr. K. P. Chatterji, M.Sc.	261
The Newspaper Press Under The East India Company—by Mr. O. P. Bhatnagar, M.A.	268
Guardians	281
A Fantasy—by Mr. Kamta Nath Sinha, B.A.	281

The Alma Mater Muses over her Golden Jubilee (A Phantasy)—by Mr. Shanti Swarup Gupta, M.A.	284
At the Counter—by Mr. Prabhatindu Gangulee, B.A. ..	289
From a Wayfarer's Diary—by Mr. P. D. T.	292
On the Nature and Function of Poetry—by Mr. Anand Swarup Gupta, B.Sc.	295
The University of Books—by Prof. Diwan Chand Sharma, M.A. ...	300
Literature <i>versus</i> Vulgarly—by Mr. J. C. Mathur, B.A. ...	314
University Education in the U. P.—by Mr. B. G. Bhatnager, M.A. ...	316
The Founders of Indian Political Economy—by Mr. G. D. Karwal, M.A.	326
Commercial Education in the U. P.—by Mr. K. L. Govil, M.A., B.Com.	332
The Genesis of Urdu—by Dr. Md. Hafiz Syed, M.A., Ph.D., D.Litt. ...	339
Problems of Old Age and Death—by Dr. Shri Ranjan, D.Sc. ...	344
Amusement from Mathematics and Mathematicians—by Dr. B. N. Prasad, D.Sc., Ph.D.	348
The Universities of India and the Need of a Scale of Values—by Mr. S. C. Deb, M.A.	353
The Poet of Poets in Urdu—by Captain S. M. Zamin Ali, M.A. ...	361
The Hierarchy of Values—by Mr. A. C. Mukerji, M.A. ...	393
Asia in Material Civilization—by Dr. R. P. Tripathi, M.A., D.Sc. ...	398
The Source of the Śakuntalā and its Treatment by Kālidāsā—by Mr. K. C. Chattopadhyaya, M.A.	407
Ibn Khaldun on Teachers and Students—by Mr. M. Naimur-Rehman, M.A.	424
The Aspirations of Young Japan—by Prof. E. G. Speight, M.A. ...	429
A New Light on Rigvedic Culture—by Dr. Radha Kumud Mookerji, M.A., Ph.D., M.L.C.	441
The Place of Stringed Instrument and Flute in the Dances of Greece and India in Ancient Time—by Mr. D. Ojha, M.A., LL.B. ...	444
Kipling and "The Bubble Reputation"—by Mr. K. K. Mehrotra, M.A., B.Litt.	451
The Vampire—by S. I. K.	471
The New Biography—by Mr. P. C. Gupta, M.A. ...	476
The University : A Retrospect and a Prospect—by The Hon'ble Mrs. Vijaya Lakshmi Pandit	485
The Allahabad University—by Mr. C. Y. Chintamani ...	487
University Associations	491



THE ETERNAL MOONLIT SNOW.

—Mr. R. N. Deh.

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INDIA'S MONETARY MUDDLE*

By MR. B. P. ADARKAR, M.A.

“The ideas of economists and political philosophers, both when they are right and when they are wrong, are more powerful than is commonly understood. Indeed the world is ruled by little else Madmen in authority, who hear voices in the air, are distilling their frenzy from some academic scribbler of a few years back. I am sure the power of vested interests is vastly exaggerated compared with the gradual encroachment of ideas. Not indeed immediately, but after a certain interval; for in the field of economic and political thought there are not many who are influenced by new theories after they are twenty-five or thirty years of age, so that the ideas which civil servants and politicians and even agitators apply to current events are not likely to be the newest. But soon or late, it is ideas, not vested interests, which are dangerous for good or evil.”

—Keynes, *General Theory of Employment*, p. 383.

I

“Currency,” Disraeli is reported to have said, “has made more people mad than love.” By this he probably referred to that type of

* This paper was read at the Agra Economic Conference in December 1936. That Conference by an overwhelming majority declared itself in favour of a reduction of the ratio from 1s. 6d. to a lower level even at this stage in the development of currency in India.

foolhardy madness which would stick to preconceived ideas in the face of contradictory evidence rather than to the madness which only the love of the subject itself might create! Well, so far as the Indian currency issue is concerned, to open discussion on such a highly controversial question as the Ratio (e.g.) is to bring a veritable hornets' nest about one's ears. Yet, I cannot resist the temptation and say that "I come to bury the Ratio, not to unearth it." For, although the subject prescribed for the Conference covers a somewhat wider field, the recent European devaluations and the chain of causes which led to them have been so well narrated by our monetary chroniclers that perhaps little remains to be added or explored in that direction; and the latter part of the subject still remains as attractive as ever. Moreover, after a careful study of the subject, I feel that the pitched battles of not so very long ago have not exhausted the possibilities of further light on this subject, especially in the new setting provided by the recent international monetary developments, in the light of the growing post-War literature on the theories of foreign exchange and monetary policy, and in view of the history of the rupee during the last ten or fifteen years. Nothing is easier, especially after the event, than to take a cynical pleasure in exposing the short-sighted errors of men in authority and the logical blunders of economic teachers against the background of the new doctrines; but the raking up of dead issues is essential if their ghosts are going to haunt us and past experience, especially of the bitter variety, may usefully be brought home to such other erring individuals to save further catastrophes, if we can. The history of Indian currency

Since the paper was written, owing to several causes, the Indian wholesale and other price levels have shown a rising tendency of late. The question would, therefore, suggest itself whether there is still a case for reduction of the ratio or for an independent experiment in currency standards in India. I would unhesitatingly answer such a question in the affirmative and for the following reasons: (1) In the first place, the rise in prices is not at all so considerable as would be necessary to bring the price structure of India into alignment with its cost structure, and a still higher rise would be necessary to provide the producer, whether he is an agriculturist or industrialist, with a sufficient margin of profit. At present the outgoings of the producer are still in wide disparity with his incomings; and so long as this continues to be the case, the problems of rural indebtedness on the one hand and that of industrial unemployment on the other will continue to infest the economic life of this country. (2) Secondly, as compared to other countries our price rise is almost insignificant. This means that when the Crisis comes, prices in India will sag further than prices in other countries. In this respect, it can be said that our economy is suffering from a kind of low-blood pressure throughout, and owing to the continuous, restricting and cramping influence of the sterling exchange standard, coupled with a high ratio, it has never really got a chance of attaining its full stature. For these and several other reasons, which space prevents me from developing, I adhere to the position that either Devaluation or Monetary Independence is an absolute necessity.

is a story of the pathetic struggle between an all-powerful, dogmatic, impenitent group of foreign vested interests and officials and the representatives of the people. "No jam today, jam tomorrow," has been, in brief, the Government's response to the people's demand on every occasion; and what is England's meat has been India's poison in the matter of India's demand for a gold currency (now happily defunct, though at the time fully justifiable) and in that of Ratio, as in many another matter of public economics. History repeats itself: today again the Government of India has been talking the language of internationalism (refusing to have any "part or lot" in a race of depreciation) as it did in the nineties playing the role of a long supporter of bimetallism and in the last fifty years or so keeping clear of the taint of gold on the ground that India's currency demand for the yellow metal might injure foreign monetary interests!

Before going into the pros and cons of the question, perhaps it will be convenient if I state my conclusions rightaway, to facilitate the gathering of the thread of argument, and then come to the details.

1. Firstly, then, the time is undoubtedly opportune for a reconsideration and revision of our monetary policy, especially in view of the explicit promise contained in the preamble of Reserve Bank Act which runs as follows:

"And whereas in the present disorganisation of the monetary systems of the world it is not possible to determine what will be suitable as a permanent basis for the Indian monetary system.

But whereas it is expedient to make temporary provision on the basis of the existing monetary system, and to leave the question of the monetary standard best suited to India to be considered when the international monetary situation has become sufficiently clear and stable to make it possible to frame permanent measures; etc."

This preamble to the Act has been inserted from the very first stage of the reading of the Bill by the Government itself and was not thrust upon an unwilling executive by a cantankerous legislature. The way, however, in which the Government has tried to hush up discussion of the currency issue—leave aside a regular inquiry into our currency requirements—suggests either that the preamble was not inserted in good faith or that the Government thinks that the international monetary position has not yet "become sufficiently clear and stable."

The political dodges and counter-dodges, which characterised the recent Assembly manœuvres, further suggest that the Government is not prepared to face the issue of the standard in a straightforward manner. One does not know who are the economic advisers of the Government or what are their intellectual credentials; but this much is certain that the deep-rooted conviction with which the Finance Member has been turning down all requests for a consideration of the monetary situation is the result of his being either misinformed or misguided by non-Indian interests. Even some of the best supporters of the 18d. ratio in 1926 had visualised a situation in which, if gold prices showed a sagging tendency, the ratio could be revised in a downward direction to protect the Indian price structure from collapse.¹ It is a pity, therefore, that the Government has stuck to its ratio with a bulldog tenacity.

2. The second conclusion is that the Rupee is overvalued in relation to (i) sterling since 1924, (ii) the rest of the sterling area since 1931, (iii) the new devalued currencies of 1936, (iv) the currencies of our chief competitors, *viz.*, Japan, England, the United States etc., and (v) goods, both external and internal.

3. The third conclusion is that the right ideal for our currency policy is (a) to delink the rupee from sterling mainly because the management of sterling is not on all fours with the requirements of the price-structure of India which is largely of the primary variety, and (b) to take steps to reflate the internal price-level and re-galvanise industry *up to a point of equilibrium* with costs, i.e., of full employment by any or all of the following methods :

- (i) Currency expansion, corresponding to the sterling assets now being provided by the excess of gold exports which is rigging up the exchange to the upper point,—an expansion unaccompanied by a borrowing programme in the rupee market
- (ii) extension of credit facilities for agriculture and industry through the regular machinery provided by the Reserve Bank,

¹ Keynes, Evidence before the Hilton Young Commission, Qq. 12981, 13005; also Sir Basil Blackett himself, Minutes of Evidence, q. 116.

- (iii) a well-planned public works programme, as a second line of defence,
- (iv) a programme of deficit budgeting,
- (v) correction of the balance of trade with a view to the full utilisation of gold exports towards industrial financing and debt cancellation rather than towards payment of income items like home charges etc.

4. The fourth conclusion is that if the rupee cannot be delinked, an immediate devaluation be effected in terms of the sterling currencies and the *devalued* gold currencies, with a view to (i) safeguarding India's competitive position in the world's staple markets, and (ii) rehabilitating the cost-prices relationship which has been seriously disrupted since 1922, in a progressively destructive manner. The 16d. ratio is not particularly sacrosanct in this connection, but from 10 per cent to 20 per cent devaluation would be necessary, as there is considerable lee-way to be made up for the mobilisation of the mass stagnant, sagging agricultural prices of India.

II

I shall now come to the rationale of these conclusions and first try to thresh out within as small a compass as possible the theoretical issues involved in these discussions. The central theoretical issue in Indian currency has indeed been that of the "natural ratio," as our currency has been from the very beginning an Exchange Standard, whether it be gold or sterling. The next important issue has been whether India's choice should be price stability or exchange stability; stability of prices being interpreted in the old classical sense of a stability of the chosen index of prices. Apart from these two main strands of theory, historically, there have been the antiquarian propositions of convertibility or inconvertibility and of gold standard *versus* sterling. It will not be an exaggeration to say that throughout the monetary discussions in India, our thinkers have not been able to see the wood for the trees; and sometimes at any rate there has been so much confusion that debators have actually given up their respective positions and unconsciously exchanged them.

Let us take a bird's-eye view of the leading ideas as to what constitutes the "natural ratio" in the 1926-7 discussions. The first problem which exercised the minds of the controversialists in those days was whether the 18d. ratio in 1925 and thereafter assumed the position of a norm: i.e., was there a mutual adjustment of the ratio and prices? I have given the facts of the Indian case in the next section; here only this much need be said that this notion of a natural ratio was wrong and misconceived *ab ovo*. If you raise the ratio artificially above its natural level to any extent, and keep it pegged at the new level, the internal price structure, especially the wholesale part of it, is *bound* to get itself adjusted at a lower level to the new ratio. The natural ratio, in that respect, bears some affinities to the natural rate of interest of Wicksell—if it is infringed either in the upward or downward direction the effect on prices is in the *opposite* direction; thus there is a negative correlation between artificial alterations in the exchange and the movement of prices. For this reason, the so-called adjustment is possible with any ratio whatever, whether it be above or below the natural level: this does not, therefore, provide a criterion, especially as a fall or rise in prices is possible for reasons other than changes in the exchange rate, simultaneously operating. Thus in the years 1922 to 1927 prices in India were falling gradually at times and rapidly at others—partly in sympathy with agricultural prices all over the world. We cannot just for that reason declare that our ratio was artificially high. Nor, on the other hand, can anybody assert, as the Hilton Young Commission did and even Sir P. Thakurdas implicitly accepted, that because prices had fallen in the same proportion as the ratio had risen there was a presumption of a natural level in this. The rupee prices would have been adjusted even to a 2s. rupee if ruthless contraction had been carried out. The point to be borne in mind is that mutual adjustment is only possible when neither the exchange nor the prices are controlled—and this could hardly ever be the case in an exchange standard management, or was actually the case with the rupee ratio in 1923-27.

The next criterion suggested by writers was whether the ratio had been adjusted to both internal and external prices. Now if by these

2 Hilton Young Commission's Report, paras 182 ff.; Sir P. Thakurdas's Minute of Dissent, paras 82 ff.; H. L. Chablan, *Studies in Indian Currency and Exchange*, pp. 194 ff.; Sir J. C. Coyaji, *The Indian Currency System*, p. 290 ff. etc.

terms, "internal" and "external" we mean respectively the price-levels of goods of domestic trade and of foreign trade of the country, then there is neither the necessity nor the possibility of these two price-levels showing an exactly parallel movement over any length of time either due to intrinsic factors or by the action of artificial changes in the exchange ratio. The two price-levels correspond to two different composites belonging to two distinct markets which are not directly and equally affected by a common cause.³ Thus there is no sense in which we can speak of adjustment of the ratio to both internal and external prices as interpreted in the above sense. However, if by the two terms we mean prices in foreign countries and prices in our own,⁴ there is some meaning in a ratio-price equilibrium, but only on two assumptions: (a) that the prices abroad and prices at home relate to the same composite commodity of international significance, and (b) that the foreign countries in a body belong to the same standard. The best comparative index available for (a) is the wholesale index of each country. If the second assumption does not materialise, it is enough if the country whose currency is chosen as standard (e.g., England) alone is considered. There is one fallacy, however, against which we will have to guard ourselves: thus the mere fact that at a certain date the several indices came together at a definite figure does not mean that was necessarily any equilibrium. Thus Sir Basil Blackett in his Evidence before the Royal Commission said that "British, American and Indian prices have come together at a figure of about 160."⁵

Sir Basil Blackett did not consider the divergent dynamics of the various indices, the rate at which the prices were falling or rising. The English, American and Indian prices were not moving at the same rate and it was merely a fortuitous coincidence that the indices came together at 160. There was no theoretical significance to be attached to that fact. As a matter of fact, the Commission themselves admitted

³ Cf. Keynes, *Treatise on Money*, Vol. i, Chapter on *Diffusion of Prices*, where he points out that an initial impulse may spread disparately among the various prices which may remain for long permanently divorced from one another. See also my *Theory of Monetary Policy*, Chapters 9 and 10 for this and other allied issues raised throughout this paper.

⁴ Thus, J. C. Coyaji, *op. cit.*, p. 300, "Is it a fact that in India prices have fallen to a greater extent than in other countries? Such would have certainly been the case had there been such an excessive deflation." Also *Hilton Report*, paras 186 onwards; Chabiani, *op. cit.*, p. 222.

⁵ Q. 27; also his Delhi University Lecture of 23 November 1926.

(para 186) that "from October 1924 to September 1925 there was a rapid and violent downward movement of the rupee price-level which was not the reflex of any similar movement in world prices."⁶ This admission which was meant to illustrate the proposition of the criterion in the previous paragraphs of this paper that prices had been adjusted to a higher ratio is decidedly damaging to conclusion based on the present criterion.

But there is yet another criterion available for determining whether the ratio was a natural one or not. That is the criterion of the relationship between prices and costs. Sometimes, in the classical style, "wages" are substituted for "costs" here, but although wages are a preponderant element in most costs, we must also pay attention to other fixed and contractual costs, such as interest on past commitments, rent, land revenue etc. These elements of costs which constitute the out-goings of the producer have to be balanced against the prices (i.e., in-comings) obtained. During the currency controversies of 1924-27, no proof was brought forward to show that either wages or any of these costs had fallen in the same proportion as prices, although that august body of wage-earners, the Madras Government wept tears over the possible contingency (in the event of a 16d. ratio) of a future fall in wages, without so much as pausing to think what the real wages had actually come to like, when what they meant to say really was that the sterling value of the fat salaries of the *burra sahibs* would come to be less! Yet, this indeed has been the gravamen of the case against the 18d. ratio that while the costs (which are, in India, of an *intermediate* duration without any reference to, say, a ratio of 2s. which prevailed before 1873) were attuned to a 16d. ratio and further aggravated by an upward tendency during the War years. The rigidity of the wage and costs structure which was responsible for the debacle which, e.g., followed the return to gold of England in 1925 was also a potent factor in bringing about a long-drawn depression in India which really commenced in 1922.⁷

⁶ Cf. also Coyaji, *op. cit.*, p. 303; Chabiani, *op. cit.*, p. 223.

⁷ A caveat must be entered here against the practice, first adopted in the Keynes-Churchill controversies in 1925 (See Keynes's *Economic Consequences of Mr. Churchill* etc.) and recently reasserted by Sir Henry Strakosch in the columns of the *Economist*, of regarding cost of living indices as indicative of the trend of costs of production. It may be roundly said that there is not the slightest connection between the two. Cost of living indices represent the prices of goods of final consumption

Apart from the above three criteria of exchange normality, there is one more consideration which is relevant to our problem : that is the relation between the exchange rate and the balance of payments. It is an elementary proposition that an artificial reduction of the ratio simultaneously acts as a proportionate bounty on exports and a proportionate handicap on imports, other things being equal. I think both commonsense and science are at one in this; yet, so much has been written to show that this proposition is incorrect that one almost hesitates to say that those who deny it are merely exorcising the obvious. The negative correlation between exchange *manipulation* and the export series and the positive correlation between the former and the import series cannot either be clearly established or disproved by reference to statistics, because the other things seldom remain the same and because *it is impossible to get at figures for the situation which would have arisen if other things had altered but the exchange were steady*. Thus, for example, statistics given by several leading Indian writers to disprove this proposition in connection with India's foreign trade entirely miss the mark, because currency changes apart, the foreign trade of India like that of most countries, after the Industrial Revolution and all that it stood for, could not but have shown a constantly upward trend.⁸ Therefore, statistics showing a *prima facie* contrariety to this proposition cannot disprove it; but if, in spite of contrary forces, exports fell and imports rose as a result of, say, raising the ratio, this would be a proof positive of the rule.

There are, however, one or two further points which are not often well understood in this connection. Thus, very often rising exports

habitually consumed by wage-earners (in industrial cities, in fact), and neither wages nor other costs depend on them. Only where, as in some of the Australian States, there is an automatic legal provision for it, can wages be adjusted to costs of living. The seeming correspondence between costs of production and cost of living is probably due to the word "costs" which is common to both and to the fact that cost of living indices and costs of production are both inelastic in their movements. See my *Theory of Monetary Policy*, pp. 84 ff.

It is rather curious that the protagonists of the 18d. ratio tried to have it both ways to show that the ratio had established itself in all the above three senses and criteria—proving much too much, because the three criteria can *never* give identical or harmonious results.

⁸ Pigou, in his Sydney Ball Lecture on "The Function of Economic Analysis," has got some pithy and useful things to say about the use of the statistical method in economics. Particularly, see his remarks upon the utility of inoculation in Poona during the plague of the nineties.

As regards the repercussions which foreign trade in India felt during the war and post-war years due to causes other than the exchange, they are too well-known to be repeated.

and falling imports bring about a rise in the exchange itself under a standard which is not at the moment aiming at exchange stability; in such a case there will necessarily be a positive correlation between exchange movements and export movements and a negative one in the case of imports. This case is clearly outside the scope of our proposition which only holds for manipulated exchanges. It may tell us something about a natural ratio which is brought about by the mutual interaction of exchange and foreign trade where *neither* is controlled; but in ascertaining whether a particular exchange rate chosen is natural or not, this objection does not make a deliverance. In the case of Indian exchange, there is no doubt whatever that the exchange was manipulated and held at 18d. with effort and deliberation. For this reason, a natural ratio may in a sense be defined as one which necessitates the least amount of management one way or other. The second point which I would like to raise in this regard is the fact that sometimes, owing to the choice of a very low parity for exchange, imports may be discouraged initially and exports tremendously encouraged; but the consequences of a favourable balance and more particularly of the rise of internal prices, which would come about later, would be an increase of production and employment all round and a greater demand for imports due to that increase. Thus, the recent experience of Japan suggests that a steep depreciation of currency may in fact raise both imports (particularly of raw materials) as well as exports; the same is true of Australia since 1931.⁹ The conclusion of the above discussion is that an unnaturally high ratio has the dangerous capacity of turning a country's balance from a "favourable" into an "adverse" position with the attendant result of exports of gold or securities or both.

As regards the second important issue involved in our currency discussions, *viz.*, that of the monetary ideal, I hope at this date, at any rate, there are none amongst us who would plump for an exchange stability which would disrupt all our internal equilibria beyond repair: even the diehard supporters of the 18d. ratio have paid their homage to price stability when it suited them to do so. Thus Sir J. C. Coyaji says

⁹ Mr. R. S. Sayers in a recent article in the *Economica* (August, 1934) on the Japanese Yen Depreciation, has produced figures to show that as a result of depreciation the balance of payments was actually disequilibrating. But in view of the above it would be clear that there is nothing in this to invalidate our proposition; and besides, there are ways and ways in which a balance of payments may be upset, not all of them harmful.

that if the price-level remained relatively steady during 1922-24 as a result of a pegged ratio, he "would go further and assert that it was very necessary in the interests of price stability."¹⁰ Similarly Keynes, who in 1913 blessed the sterling exchange standard for India and was thus partly responsible for its almost indefinite perpetuation, could still congratulate the Indian currency authorities that they had kept the Indian price structure so secure and immune from outside disturbances during the post-War years.¹¹ It is a strange virtue indeed discovered in exchange manipulation by a pegged ratio, that it sometimes kept prices steady, but it ill becomes the protagonists of the 18d. ratio to persist in its support even when prices fell and continued to fall from 1924 onwards, if they would also thus flirt with the notion of price stability.¹²

As a matter of fact, even price stability is today a discarded ideal: when costs of production are falling or are disproportionately high, merely price stability would not lead to either maximum production or maximum employment. Thus those who are patting the Government on its back today, for having achieved a stability of prices (at a figure of about 90) forget that this stability is accompanied by a great and persistent disparity between prices and costs which have been left high and dry—whether in the industrial or in the agricultural sphere,—and that the wide-spread unemployment and indebtedness in the country are the consequences of that disparity. The price-level in India is shouting for a rise; but so long as the depressing influence of an inflated ratio is operative it is futile to expect that this would come about.

Still it is a view held by many that reflation of prices up to a point of equilibrium with costs, or what is the same thing reduction of the interest rates and expansion of currency with a view to speeding up the rate of investment and the propensity to consume till the point of full equilibrium is reached, may not help a recovery or rehabilitation, and my friend Prof. P. J. Thomas often quotes an old discarded dictum of Keynes that "You cannot grow fat by using a bigger belt." Thus, according to Professor Thomas, "Currency manipulation (*i.e.*,

¹⁰ *Op. cit.*, p. 302.

¹¹ Hilton Young Commission Report, Evidence, Q. 13027.

¹² B. N. Kaul, in the Delhi Conference Number of the I. J. of Economics (1933) approves of the 18d. ratio on the ground that the price-fall was arrested.

exchange manipulation) is no suitable means for producing a stable rise in prices. As Keynes puts it, you cannot grow fat by using a bigger belt. A general upward trend of prices is desirable, but such a change can come about by an increase in demand and employment. It must begin at the employment end and not at the currency end. Hence the highly beneficial results which might have come from a carefully designed public works expenditure in India after the depression reached the bottom."¹³ Now apart from the question as to what really are the views of Keynes in such matters. in the first place, it stands to logic that although we need not perhaps use a bigger belt, this is no reason why we should use one so short as would almost strangle us out of our breath! As Professor Thomas is specifically dealing with the question of devaluation here, we might mention that it is at least *possible* that the belt of the ratio might have been too tight all these years. That was precisely the complaint of Keynes against the post-War gold parity of the pound and as far as monetary expansion is concerned, it is all in the *Treatise* and the *General Theory*, whether you like it or not. Keynes's real view is not that there is only one "public works" end to bring about greater employment but that there are various ends suitable for different situations severally or jointly : countries on an exchange standard might find exchange depreciation helpful: in others both currency and credit expansion through the machinery of the note issue and the bank rate might be tried; in still others public works or fiscal measures enabling expansion within a closed area might be more expedient. Here are the various ends and possibilities—which can be tried by the Governments in India as they have been tried elsewhere. But what have we here but all the orthodoxy, nihilism, pessimism and do-nothingism that we might expect of an unenterprising, antiquarian and anachronistic Government? Professor Thomas pins his faith on public works, but in view of the low ratio of 4:3 of primary to secondary employment which he has worked out.¹⁴ I doubt very much if the solution of the gigantic problem of unemployment and of prices can be suitably managed by a public works programme, which would have to be on a really tremendous scale to touch these problems. I have no objection to public works

¹³ *Indian Economist*, November 9, 1936, and elsewhere.

¹⁴ See his paper on "A Plan for Economic Recovery" in the Patna Conference Number (April 1935) of the I. J. E.

per se, however. On the other hand, devaluation would give an immediate relief to traders and producers by taking a load off the price and trade structures of our economy, and would redress the wrong that has been done all these years by giving an all-round impetus to trade, both foreign and domestic.

There is another objection raised by critics against devaluation and reflation, *viz.*, that the advantages are bound to be *temporary*. This objection reminds me of an American merchant in a Mark Twain novel, who on being told that "Beauty is only skin-deep" replied that it was deep enough for most men! Thus even supposing the advantages of these measures are really of a temporary duration, I think the duration is long enough for most economies to avail of. But it is a fallacy, in the first place, that the advantages of depreciation *are* temporary. And secondly, it is a mistake to suppose that depreciation is asked for in order that we should reap some undeserved advantages which are not indicated by the exigencies of the situation. As I see it, depreciation is required not as a windfall but as a highly necessary corrective for all the disadvantages which have been hampering our economy of late. It is said that when prices rise all round, there would cease to be any advantage, and the merchants and producers will clamour for further doses of devaluation. But those who assert that all prices and all costs would rise in the same proportion in a kind of Marathon race do not know the a-b-c of the pricing mechanism. Various monetary measures would affect different price-groups in various ways. It all depends on where the money factor is first inserted. Thus in the case of exchange devaluation, the international price-level in the terms of our currency will experience an immediate rise which would be automatic and nearly proportionate to the degree of devaluation, because the exchange rate (which is nothing but the terms at which we are prepared to buy foreign goods and sell our own) will immediately open up possibilities of a greater demand for our goods. As regards the domestic price-level, this will be affected indirectly and to the extent to which diffusion of the initial impulse of devaluation and consequent expansion of purchasing power takes place to that price-level. Thus there may come about a more or less permanent re-stratification of relative prices.¹⁵ The next

¹⁵ Keynes, *Treatise*, Vol. i, pp. 89—94.

proposition is that the rise in prices will not be communicated to costs of production except to a very small extent. Cost of living might indeed rise, as a retail price-level would rise in a less elastic manner than the rupee international wholesale price-level. But there is no automatic machinery causing wages to rise in consequence in this country, as in most; and, moreover, so far as India is concerned, wages are usually a part of the residual income of the agriculturist not his outgoings. Land revenue and rent, irrigation rates, interest on the vast accumulated debt—these are fixed, contractual items. The agriculturist in India does not live on imports, nor does his equipment consist of imported implements to the extent commonly supposed; thus if imports are slightly dearer, he *will not* be hurt. We can rest assured, therefore, that the tears which the Government sheds for the poor agriculturist are either the tears of innocents or the tears of crocodiles. As regards industries, some elements in costs would rise, but total costs per unit cannot rise in the same proportion as prices and there will remain a margin for expansion of production or at least the present negative margin will be wiped out. There is another obsession that haunts some of us, *viz.*, the fear that the middlemen might pocket all the profits at the expense of the producer; this fear is meaningless, because, although the middlemen can avail themselves of a temporary lag between port prices and up-country prices, still as the war and post-war periods show, the rise in the prices of staples is very soon communicated to the producing centres owing to intense competition among the middlemen. The speed with which the price rise is communicated may further be improved by putting some pep into the slow and somnolent machinery recently created for the Marketing Surveys, etc.

III

Let us now come to the factual position in India and in the rest of the world. In the pervious section, I dealt with the theoretical aspects of devaluation; we shall now see how different countries have fared under different monetary therapeutics. I think by now we should generally agree that a lie direct has been given by recent monetary history to the fears and doubts of the Deflationists; anyone who doubts that should peruse from end to end the *Monetary Reviews* of the League

of Nations of recent years. Thus, the latest one for 1935-36, after making a careful survey of the entire field of the world's monetary developments, declares that "It must be recorded, as a matter of historical fact, that in those few countries which did not either depreciate their currency or use the protection afforded by exchange control to pursue an expansionist monetary policy, no considerable measure of economic improvement had taken place by the end of 1935." (p. 56) But if further facts are necessary as reminders, I shall recount them briefly here.

The classical examples of the failure of deflationist policies are (a) England between 1925 and 1931 and (b) the gold *bloc* between 1931 and 1936. The events in both are too well-known to need recapitulation here. On the other hand, the success of reflationist policies is illustrated in varying degrees by (a) the sterling area including particularly South Africa,¹⁶ Australia¹⁷ and New Zealand,¹⁸ Sweden,¹⁹ Denmark and Norway, and (b) Japan and the United States.²⁰ I will not waste time in giving the details of recovery in each of these countries but would direct attention to the cases of Japan and Australia, both of whom depreciated their currencies in such wise that they could keep intact their respective price and production structures and effect a solution of the cyclical problem almost overnight. The yen was reduced in its gold value by nearly 65 per cent between 1930 and 1935, while the Australian pound was first depreciated in terms of sterling by 20 per cent in 1931 and when the latter went off gold, it received a further dose of depreciation in September 1931. Australia, on the verge of bankruptcy, recovered her position by a method which was pooh-poohed by the monetary prigs and "sound" financiers all over the world. In view of all these things, it is a surprise that there should still linger amongst us a school of thought which would insist upon *laissez-faire* and *status quo*. Such people are generally afflicted by an inflationphobia, but it is not clear to them that the one thing that recent world events have

¹⁶ Prof. C. S. Richards' brilliant article on "Economic Revival in South Africa," in the *Economic Journal*, December 1934.

¹⁷ Copland, *Australia in the World Crisis*, 1929-1933, *passim*.

¹⁸ A. H. Tocker, "Economic Recovery in New Zealand" in the *Economic Record*, June 1936, pp. 86 ff.

¹⁹ Brinley Thomas, *Monetary Policy and Crises* (A Study of Swedish Experience), pp. 109 ff.

²⁰ Charles O. Hardy, "Devaluation of the Dollar," *Public Policy Pamphlet No. 8*, pp. 15-22.

taught us is how to distinguish between a Hyper-inflation of the German type (of 1923) and a corrective reflation.

Now what is the position in India? In India, currency affairs have from the beginning been dominated by the famous "triple interests," *viz.*, British producers and importers, the Government of India's budget-makers, and British officials in India. The conflict between these interests and India is perennial and can never easily be resolved. We all know that the staunchest supporters of the 18d. ratio were amongst official circles whose pockets would have been touched by a reduction. Yet it must be said that the salary scales which have been fixed for the Civil and Military services were fixed on the 16d. basis, and all these years since 1914 (with a short break) these services have been enjoying a windfall which has been further extended by the stupendous rise in the real value of incomes, caused by the fall of prices. Indian wage-earners and salaried persons have also gained as consumers, but unemployment has hit these people only, not the British officials whose tenures have been as secure as the Rock of Gibraltar during the years of retrenchment. No one, therefore, need feel any pang of sympathy for the British officials if the ratio is reduced. As regards the British producers and importers, again, the same reasoning generally holds good; but if the British import trade were to be badly hit by depreciation, we might even bargain for a 10 per cent preference as a compensation for a 10 per cent. depreciation of exchange, if it came to that; we will still be gainers. The budgetary issue, however, is nothing but a meaningless bogey. In the first place, why should we merely worry about the budgetary balance of the Government of India? There are Provincial budgets also to be considered, and there are hundreds of thousands of private and commercial budgets, not to speak of the budgets of the various Railways and other commercial undertakings of the Government. What if all these budgets are in deficit while only the Central budget is balanced? Yet this obviously is what is happening since 1923.

	Madras	Bombay	Bengal	U. P.	C. P.	Assam	Punjab	B.&O.	Total
1923-4	+3.34	+86	+36	+2.24	+45	+35	+2.86	+44	+9.40
1924-5	+3.19	+83	+58	+1.97	+59	+46	+3.08	+23	+10.92
1925-6	+3.19	-57	+40	+1.52	+16	+27	+2.72	+24	+7.93
1926-7	+2.66	-37	-20	+1.55	-55	+15	+24	-32	+2.06
1927-8	+2.00	-29	-04	+1.12	+02	+18	+20	-15	+2.02
1928-9	+1.40	-34	+08	+83	-20	+01	-46	-08	-42
1929-30	+1.24	+11	+02	+65	-14	-26	-03	-14	+1.53
1930-1	-1.06	-1.81	-74	-91	-44	-29	-42	-79	-7.46
1931-2	+05	-47	-1.99	-60	-38	-07	-42	-23	-4.21
1932-3	+77	+27	-1.29	+16	+10	-17	+17	+05	-03
1933-4	+07	+17	-1.76	-03	+39	-36	-63	-30	-3.23
1934-5*	-19	-13	-66	-09	-11	-42	+43	-17	-1.34
1935-6†	+05	-02	-69	-18	+01	-59	+70	-38	-1.80

† Budget.

The above figures give the surpluses (+) and deficits (--) in crores of rupees. For the first three years, the figures include the provincial contributions to the Centre. The Central receipts and charges (in crores) for the same years were as under :—

Receipts	87	91	89	86	82	83	85	77	74	80	73	76	76
Charges	85	86	85	86	82	83	86	88	85	79	76	76	75

It will be seen that as from the crucial years of 1925-26, generally budgetary balance was upset both at the Centre and in the Provinces, but more in the latter. Thus, those who sing the praises of the Government of India for having kept the budgetary ship on an even keel and India's neck high above water raising her credit in the world's monetary centres, forget that this has been done at the cost of the following things: (a) ruthless retrenchment and reduction of salaries especially of the lower grades of the cadres, (b) wide-spread unemployment, (c) Provincial deficits, (d) industrial and agricultural losses and growing rural indebtedness, (e) general bankruptcy of the railways, port trusts and co-operative societies, and (f) growing poverty and

destitution throughout the land. Thus while the people are suffering the Government is rolling in wealth! Budgetary balance indeed! A system of public finance which was never acquainted with modern socio-economic welfare activities and with nation-building services can always enjoy surpluses, provided the trimming is well done and the extortions are kept sufficiently high. Thus it is that international credit goes soaring higher and higher!

But apart from this hand-to-mouth aspect of budgeting, I am not convinced that by reduction of the ratio or by delinking the rupee from sterling, there would be either a general collapse of Indian credit or the catastrophe of a deficit. At the present moment, the true secret of the Government's high credit is the export of gold—so long as this continues there need be no anxiety. But if there is devaluation, my feeling is that there will be greater exports of gold, not less, and also that the budget will show growing surpluses from year to year. A budget for its balance depends upon two ends—revenue and expenditure; and correspondingly there are two ways of achieving budgetary equilibrium: to increase revenue or to reduce expenditure. The Government has been adopting the latter course in recent years, thus aggravating the depression. But if devaluation is effected, while expenditure may increase by 4 to 5 crores per annum on account of the sterling commitments, revenue which depends upon business profits and prosperity in the country will definitely increase to a greater extent still. Moreover, Provincial budgets which have no "home charges" to attend to will certainly have booming surpluses, while public utilities and commercial undertakings will reap profits and enjoy surpluses which are likely to be many times greater than any imaginable deficit in the Central budget. On the other hand, delinking will lead to some fluctuations in the Central budget on account of the "home charges," but these fluctuations, as I have tried to show elsewhere,²¹ are insurable risks and can be pooled into a Budget Equilisation Fund created for that purpose. Similarly, our foreign trade (which is only a small proportion of our total trade) can be protected against exchange fluctuations by the creation of an efficient forward exchange market.

I now come to the influence of the exchange ratio upon the balance

21 "The Future of the Rupee" in *The Twentieth Century*, October 1934.

of payments. It will be seen from the following figures—and it is not merely a pure coincidence because we have already decided that theoretically a positive statistical result is more worthy of consideration than a negative one here—that the years 1925-26 mark the turning point for a progressive disequilibrium of our foreign balance of payments, indicating an adverse capital account, during 1925—31, and heavy gold exports during 1931—36, only a part of which was employed in foreign investments.

The Table below shows net balances in each series of transactions—in crores of rupees

	Income Account					Capital Account		
	Merchan- dise	Interest etc.	Other services	Gold	Total	Long- term	Short- term	Total
1923-24	+110.5	-32.4	-43.3	-29.2	+5.7	+22.1	-27.8	-5.7
1924-25	+117.7	-31.8	-33.4	-73.9	-21.4	-12.3	+33.6	+21.4
1925-26	+119.1	-29.0	-36.5	-34.9	+18.7	-16.5	-2.2	-18.7
1926-27	+35.1	-29.8	-34.7	-19.4	-48.8	+38.4	+10.4	+48.8
1927-28	+51.3	-31.4	-34.7	-18.1	-32.9	+14.7	+18.2	+32.9
1928-29	+66.5	-32.5	-31.2	-21.2	-18.4	+5	+17.9	+18.4
1929-30	+53.8	-31.6	-18.0	-14.2	-10.0	+13.3	-3.3	+10.0
1930-31	+37.1	-33.6	-15.9	-12.8	-25.1	+43.2	-18.1	+25.1
1931-32	+22.2	-34.8	-17.9	+60.0	+27.5	+11.8	-39.3	-27.5
1932-33	-5.5	-34.4	-16.1	+65.5	+9.5	-6.5	-3.0	-9.5
1933-34	+27.0	-34.0	-12.1	+57.0	+38.0	-21.5	-16.5	-38.0
1934-35	+11.3	-32.5	-13.9	+52.5	+17.4	-8.7	-8.7	-17.4

(From the *Balances of Payments, 1934*.)

It must be stressed here that the net balances in the various series are more significant than the absolute figures. Thus, under a common influence, both the import and export trade might increase or diminish, but the *dynamics* of imports (which need not necessarily rise faster)

might be affected in one way and that of exports (which need not fall) in another by an artificially high exchange. Thus a falling merchandise balance may be expected to be a direct outcome of this; and the fact that in spite of a high ratio both exports and imports increased can be eliminated as a general tendency brought about by extraneous factors. The falling merchandise balance from 1926-27 onwards, the heavy borrowing programme during 1926-31 and the gold exports during 1931-35 are outstanding and significant events.

It will be seen that since 1931 the merchandise balance shows little real improvement, in spite of the rupee going off gold and that India has not shared any of the increasing measure of recovery which has been the feature of international trade during the last three or four years. It is the gold exports which have stepped into the picture partly paying for our home charges and to some extent cancelling our foreign indebtedness, on public and private account. The ethics of the gold exports is a separate issue with which I have dealt elsewhere.²² Here I would say only this, that although I for one would not mind even if all our gold is exported to the rest of the world²³ so that the other gold-maniacs could have it, the purpose towards which this (dead) capital asset is being utilised is a matter of the highest importance to our monetary policy. If only we could balance our income items without the aid of gold, the present enormous exports of gold would enable us in the not very distant future to emerge as a creditor nation in the world. I mean that we should mobilise this dead asset of gold so that we may be in a position to convert it into living, interest-yielding securities (either cancelled or new ones) only, without frittering it away on our income requirements.²⁴

Let us now study the price statistics in relation to the ratio. The following figures which are collated from various sources show the movement of wholesale price series in seven typical countries. The whole-

²² See the controversy between Professor Shenoy and myself in this connection in the *Indian Journal of Economics*, July 1935 and January 1936.

²³ While the going is good and the foreign price is high (52s. per tola in 1936 as compared to 28s. per tola in, say, 1913).

²⁴ This does not imply that the gold exports are themselves caused by a high ratio—See my article, *sup. cit.*

sale price level, being an international index proper to the several currencies, is the best index of the behaviour of the ratio.

	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932	1933	1934	1935	1936
U. K. (a)	159	160	173	177	157	146	144	127	119	104	86	89	90	94	100
U. S. A. (b)	138	156	151	160	156	147	138	136	123	104	93	94	107	114	115
India (c)	175	175	170	165	159	146	145	141	117	96	91	87	89	91	91
U. K. (d)	...	...	...	...	...	...	...	...	...	100	103	121	124	126	151
Austral. (e)	...	...	...	...	...	...	...	165	146	131	129	129	135	135	146
Sweden (f)	...	...	...	...	...	...	...	140	122	111	109	107	112	116	120
Japan (g)	...	...	...	...	...	...	...	166	136	115	121	135	134	140	149
France (h)	...	...	...	...	...	...	...	627	554	502	427	398	385	339	402

(a) Economist, 1913; (b) U. S. Bureau of Labour, 1913; (c) Calcutta, 1914; (d) Economist, primary products, 1931; (e) Commonwealth Bureau; (f) Swedish Board of Trade; (g) Mitsubishi; (h) Statistique générale. (c) to (h) have 1913 as base.

From the above figures, it will be seen that India has been in the throes of a long-drawn Depression since 1922, with growing unemployment and indebtedness everywhere. It is beside the point to be told that prior to 1873 the exchange was 2s. gold, because our costs belong to the "intermediate" period; hence a significant point to start would be 1913 or 1922 or even 1929 and 1931. It will be seen that up to 1925 the dynamics of the U. K. wholesale price index was positive as also of the U. S. A. index; only the Indian price-level was sagging right since 1923; which indicates that the efforts to establish the 18d. ratio began to tell upon Indian prices in the reverse direction— a clear proof of the unnatural level of the 18d. ratio in 1925. In 1925, England returned to gold at a high parity and her prices began to sag too. From that year also, the rupee prices kept company with sterling prices in their precipitate fall. The rupee thus got a double dose of deflation from 1925 onwards. In 1929 began another steep fall of rupee prices, caused by an untenably high ratio on which the falling balance of merchandise trade was exerting a continuous downward pressure. Our going off gold in 1931 along with sterling provided some slight relief; but here again, although the English price-level rose by 14 points between 1932 and 1936, the Indian price index has been practically steady round about 91. A better comparison is afforded by the U. K. Economist "primary products" index (1931=100), for which earlier figures are

not available. This index, which is more comparable with a wholesale index of a primary kind like ours, shows a steep rise from 100 in 1931 to 151 in 1936; similarly the American dollar primary index rose from 100 in 1931 to 172 in 1936. But our ratio has been a continuous drag on the rupee prices. If further proof were needed that the rupee is enormously overvalued today (whether or not it was overvalued in 1925—27), it is to be found in these figures as well as in the figures for Australia, Sweden, Japan and France (*even* France).

But, we are told, the rupee to-day is 37 per cent below its former gold parity and this at any rate must satisfy the currency reformers. The advantages of this so-called devaluation, however, have been chimerical. In the first place, even in 1931—33, since India went off gold along with England, nearly three-fourths of the world's currencies had either sought shelter in the sterling area, in some cases at lower sterling parities, or independently depreciated (*e.g.*, yen, dollar, etc). Thus, *vis-a-vis* these countries, the Indian rupee had no advantage. The only advantage that it could have derived was with the gold *bloc*. However, the gold *bloc* countries had so securely protected their markets with tariff walls and what not, that that advantage was also a mirage. As regards the Indian price-structure, its pace was set by sterling prices and by the high ratio: thus, there was nothing to be gained there either. But what is the position of the rupee to-day? Now at any rate, the rupee cannot be said to be below either sterling parity or below the parity of any of the devalued gold currencies or independent currencies of the world, whose depreciation has been far greater than any tinkering with the rupee exchange can counteract.

IV

The conclusions at which we arrive from the foregoing discussion are, firstly, that the Government must now revise its monetary policy either in the direction of delinking or in that of devaluation in order to safeguard our foreign trade and our internal structures of prices and production. Moreover, delinking or devaluation in itself will not be sufficient to give a fillip to agriculture and industry. It will have to be a frontal attack in several directions: extensive provision of rural credit; better facilities for industrial financing; public works and

unemployment relief, to encourage the rate of investment and the propensity to consume in a cumulative manner; a carefully planned fiscal policy—these are some of the measures which will be necessary to lift up the Gargantuan price and production structures of India out of the present morass. The problem of rural credit, to which much lip sympathy has been given from time to time by the Government and the progenitors of the Reserve Bank still remains wholly unsolved. The Reserve Bank's weekly return still leaves a doleful gap in regard to the bill-market programme. Tentative proposals made by the special officer appointed by the Government are still being considered by the Reserve Bank authorities; and we are told they will later be released for eliciting public opinion! And yet, while every other phase of our credit system is regulated by law, this area of rural financing remains a *terra incognita*, officially ignored, statistically non-existent. So long as the Government and the Bank fight shy of this great task of galvanising the internal credit system of the country, not only will their control of the money market remain superficial and ineffective, but the enormous rural debt must continue to be a load round the neck of agriculture.

I would conclude by saying that those who would set (a) producers against the wage-earners and consumers, (b) the middlemen against the producers, (c) the creditors against the debtors, (d) the industrialists against the agriculturists, (e) the towns against the villages and (f) one Province against another, are really like the Six Blind Men of Hindostan who went to "see" the Elephant and came back with six different impressions of that animal. No economist worth his salt would ever shut his eyes to the wider and greater interests of the nation as a whole and besmirch his fair name with quibblings such as these: for, when the doubtful theoretical triumph and the Pyrrhic victory of the day is over, there would still remain the less flippant and more onerous task of delivering a true and unbiased judgment on this important issue in a manner that would enhance the dignity of our profession and, withal, advance the ultimate interests of our nation.

CO-OPERATIVE EVANGEL

By MR. V. N. MEHTA, I.C.S.

At a time when Kaliyuga has asserted itself in its worst aspect, of War of all against all, and everybody's hand directed at his neighbour's throat, the message of this movement glides in like the dove of peace, soothing the ruffled waters and restoring calm. Co-operation in its essence is the philosophy of "the good neighbour." I want to do to you not what, I am afraid, you would do to me; but what I am led to hope you would do to me. Herein comes in the setting up of an ideal—the Pole Star of Co-operation. I must expect my neighbour to behave as I would be behaved by and therefore I must behave well with my neighbour. My neighbour is seeking my aid and I feel exalted by this appeal for assistance; and this feeling of exaltation adds a cubit to my moral height. The co-operative man is the man transfigured under the spell of the all-round good neighbourly feelings. Tulsidas has compared this feeling of exaltation to the grim determination of the clump of grass growing on the bank of a stream. When the drowning man catches at it to save himself, that clump of grass gets the fixity of a well-rooted tree. It either saves the drowning man whose hand it has grasped or in that effort it allows itself to be drowned in the yawning stream.

“ Kahan Rakhe Kahan Sanga Chale
Bahn Gahe ki Laj.”

And where can the seeds of this co-operative outlook, be better sown than in a University wherein is prepared the seed-bed for the cultivation of the future outlook on life—the *welt anschauung* of the future.

It is in the University that the best lesson of co-operation could be inculcated so that young men going out of it may practise it as a habit and the teacher trained in this seminary would be able to carry on the torch and light the way for his pupils to follow in his path when he happens to sit in another institution in a professorial chair. If the object of the University is to make its alumnus a better citizen there is nothing in which you can do more for him than to take him through the alchemy bath of co-operation so that the Snatak (alumnus), as he leaves the portals of the University, goes out as the preacher and practiser of the co-operative ideal.

THE IMPROVEMENT OF PASTURES IN INDIA

By DR. SAM HIGGINBOTTOM, M.A., D.PHIL.

By pasture is understood land which has been laid down to grass from which cattle feed themselves. By permanent pasture is meant land that has grass year after year with no rotation. In many parts of the world clover and grass are grown for a year or two as part of a rotation, then the land is put to some other crop. Such are temporary pastures. Most of the village pasture of India is permanent. Providing good pasture is the most economic way of feeding cattle, buffaloes, sheep and horses.

As one rides in the train in India one is struck by the very large areas of land frequently desert-like which are left for the cattle to roam over. Sometimes during the rains there is some green grass, but for much of the year it looks as though cattle were turned out on to a grassless waste.

As one observes the cattle on these village grazing grounds, it is unusual to see cattle in good condition. Most of the cattle look underfed, lack energy of life, many of the young stock appear to be stunted and dwarfed; yet there is a constant cry for more land to be devoted to grazing. It is difficult to understand how more of this type of land would improve the lot of the cattle turned out on it. For more than half the year, the cattle seem to be in a state of semi-starvation.

Where the grass is good and nutritious and sufficiently plentiful, good grazing is the cheapest way of maintaining cattle, because there is no expense of cutting and carrying the food to the cattle, they cut and carry their own. One of the secrets of the success of New Zealand as a dairy country is the excellency of its pastures. The pastures of Great Britain are famous and cattle do well on them. In both New Zealand and Great Britain the cattle need little or no additional food during the grazing season. The grass is sufficiently nutritious and abundant.

In spite of the excellence of the pastures of Britain, the great and ancient universities of Oxford and Cambridge in recent years have been making extensive studies into the value of pasture and the improvement of pasture. In other parts of Britain, especially in Scotland research

has been undertaken and valuable information discovered. The yield and quality of the pasture has been greatly improved due to these investigations.

India, in view of the fact that it possesses one fourth of the world's cattle, and that so much of its land is devoted to pasture, can well afford to do some extensive research looking to the improvement of its pastures. In India up to the present little work in this important branch has been undertaken. India is so large and conditions vary so much, that it is difficult to state in one brief paper what applies to all the different parts. So I concern myself chiefly with the densely populated areas. The present pastures in the congested areas of India are usually over-grazed, that is, before the grass has had a chance to grow sufficiently to provide a reasonable amount of food for the cattle, it is grazed off. Every new blade of grass before attaining an economic growth seems to be eaten or trampled. The pasture gets no period of rest or time to recuperate. Very frequently weeds which the cattle will not eat appear in the pasture. Instead of these weeds being cut before they give seed, they are usually left to go to seed, with the result that the next year many new weeds spring up and thus reduce the amount of land in the pasture area available for growing good grass. Two plants cannot occupy the same ground at the same time. If the weed occupies the ground, the grass does not and vice versa.

Very frequently alkaline land which will grow little of anything is set apart as pasture. Until these salts are removed such land has little value as pasture. Also land which is underlain with kankar or impervious clay so that there is not proper drainage and very little plant growth, is set apart as pasture. This land must be opened up and proper drainage established before the best pasture will come into being. Again many pastures are badly gullied and eroded and every year good soil is washed away and the pasture becomes less and less productive. Erosion must be controlled in order to keep up the pasture. In general we might say that most of the present pastures in the congested areas of India could not be made to produce less than they do. Through misuse they have reached their minimum. They are not really pastures, they are exercising grounds. They have been so badly abused and improperly cared for that their present production is the irreducible minimum.

In view of the tremendous economic value of good pasture it is

necessary to improve the present pastures of India. This can be done. Fortunately the lessons learned from successful experiments in other countries in part can be applied to India.

The first step in the improvement of pasture in India is to divide the total pasture of the village into five approximately equal parts; then to permit the village cattle to go on to one plot only, to keep them off the other parts, that is :—to graze all the village cattle on plot one for four or five days; then graze plot two for four or five days giving plot one a rest, then on to plot three for four or five days, then on to plot four and last on to plot five. Thus the village cattle would be permitted for periods of four or five days at a time to graze only one plot. The other plots would be rested and the grass allowed to grow. This system of rotational grazing is known as the Hohenheim system. During the monsoon and period of rapid growth it might be that the period of grazing on one plot should be three days so that on the sixteenth day, after going round in rotation, the animals would be back on plot one. Young grass five or six inches high is much more nutritious than older and fully matured grass. During other parts of the year four days or five days on each pasture might be better. But this regular rotation of pastures will enable the grass to grow on the plots not being used to a sufficient amount to give the cattle enough.

The second step is that :—all harmful weeds should be cut out before they seed. Also if grass has been left over which is tough and fibrous which the cattle will not eat, that should also be cut down. Cattle prefer the newer leafier grass.

The third step is the introduction of the best pasture grasses. There should be a variety of grasses in the pasture, some that grow well at one time of the year, some at another. The idea is to have throughout the year some nutritious grass always available for the cattle. Fortunately in India there are grasses which will grow, so that some one or more are green and growing at all times of the year. Thus the pasture is available for all the year. North India is rich in good pasture grasses, such as banderia, genea, anjan, doob; also many good grasses can be introduced as rhodes, paspalum, kikuaya. Unfortunately, we know of no good clover in the plains of India. If we could find one to mix with the village pastures it would help to keep up the nitrate supply and thus enrich the soil.

The fourth step is to give proper plant food to the pasture. Many pastures lack or are deficient in essential elements for animal well being, so some fertilizer to make up the deficiency must be applied. After the cattle have grazed a plot some sort of brush harrow or chain harrow should be run over the pasture to break up the droppings. If the manure from the cattle as they graze is allowed to remain on the pasture it will do much to maintain the fertility of the soil, but it must be distributed by harrowing. In some places a top dressing of lime, or some sort of phosphate, as basic slag or ground bone of sulperphosate; or nitrogen in the form of sulphate of ammonia or chilean nitrate, would pay well to give the pastures a start. Village compost and poudrette might also be spread over the pasture and harrowed in. If all the bone from animals that die in the village could be pulverized with a hammer mill or by a stone mill such as is used for grinding kankar or lime and spread on the pasture, great improvement would take place, the quality of the grass would be better. Sometimes the land is so badly infested with weeds and grasses unsuitable for pasture, that plowing and cropping for a year is the only way to rejuvenate the pasture.

Wherever the rain falls between the first of July and the first of October and the rest of the year is comparatively dry, there are several months when the pasture needs irrigation to give good grass throughout the year. Fortunately at times water is available, the rabi crops are past the time of need for irrigation. Irrigated pasture would pay well at normal rates for canal water. Again care must be taken to keep cattle off pasture that is so wet that hoofs destroy the sod. There is no reason, if pastures were properly cared for, why an ordinary herd of Indian cattle should need stall feeding, except when the oxen are working hard, and the cows yielding heavily. Most of them would thrive if they got enough good pasture grass. In some places the rainfall is so heavy that much of the soluble plant food is washed out of the soil and in such areas an annual application of manure would be needed.

The quality of plants varies with the amount of food available. In general poor land deficient in plant food produces crops of poor quality, while land rich in available plant food produces abundant crops of good quality. Thus proper drainage, erosion prevention, manuring, irrigation and keeping the cattle off pasture that is water-logged, will not only increase the amount of grass but will also improve

the quality so that a smaller amount of this nutritious grass will keep the cattle in better condition than larger amounts of the poorer grasses.

So far no extended research in India has been carried on to discover the carrying capacity of Indian pastures. Such work should be put in hand soon. Nearly every other agricultural country in the world is working hard at the problem of pasture improvement.

If my memory serves me correctly, at Kilmarmock, Scotland, 42 acres were divided into seven paddocks of 6 acres each, upon which were grazed sixtyfive heads of dairy cattle with an average yield per cow of over nine thousand five hundred pounds of milk per lactation period. They were grazed on this from May 1 to November 1. They were kept on each paddock for four days. After each grazing period the droppings were harrowed in. This gave a rotation of twentyeight days. The cattle were in good condition.

It is difficult to say how much stock, pastures properly cared for in India would carry. But in tropical Queensland where grasses similar to those grown in India are grown and can be grown throughout the year, ten to twelve dairy cattle per acre per week is considered normal. There the paddocks are made as small as can be well and clean grazed in the period of the rotation. On this basis if an Indian village has a hundred cattle then the pasture required would be five paddocks of ten acres each, upon which the cattle would graze in rotation, for periods of three to six days each depending upon the time of the year. The grass should be not less than six inches tall when the cattle are turned in upon it and they should graze it clean. No more cattle should be allowed on this until its turn in the rotation comes round again.

To sum up : We already know enough of the improvement of pastures to warrant extensive research in India. This improvement in pasture along with the improvement in cattle would do more than anything else to make cheaper milk available for the people, than which there is no more desirable food reform. Better quality pasture means better quality people.

LAND IMPROVEMENT AND ALKALI LAND RECLAMATION

By PROFESSOR N. R. DHAR, D.Sc.

India being primarily an agricultural country, no other scientific contribution could be more valuable than that of solving the problem of Land Improvement and Reclamation of Alkali Land and the conservation of the soil nitrogen and the fixation of atmospheric nitrogen on which mainly the fertility and crop yield of a soil depend.

The Royal Commission on Agriculture in India (1928) reported that the Indian soils are mainly deficient in combined nitrogen, and the manurial problem in this country is chiefly that of nitrogen deficiency. It is a well established fact that for the healthy growth of a plant and a proper yield of crop, nitrogen compounds or combined nitrogen must be supplied to the soil. Just as animals require nitrogen compounds (proteins) for their existence, the plants should also be fed with nitrogenous materials. The uncombined nitrogen present in the air is not directly absorbed by the majority of the plants, and cannot serve as plant food material. In Europe and in more advanced countries of the world, ammonium salts, urea, nitrates, cyanamides, etc., are supplied to the soil as manure for the nitrogen need of plants and improving the crop yield. All these compounds form ammonium salts in the soil which largely improves the yield of crops and under favourable conditions the yield can be doubled; e.g., in Belgium the yield of wheat per acre is double that obtained in India. In India the ammonium salts manufactured in other countries cost much, and as the poverty of the Indian peasants naturally restricts the use of artificial manures to make up the deficiency in their soil, so an average Indian peasant has only to depend on his farm-yard manure (cow dung), oil cakes, green manure, etc. All these substances contain proteins or complex nitrogenous compounds which in soil get converted into ammonium salts, which in their turn combine with the oxygen of the air present in the soil forming nitrites. The nitrites are also oxydised (combine with the oxygen of the air) to nitrites, which are the real nitrogenous plant food material. The plants absorb nitrites from the soil and utilize them for the building of proteins or nitrogenous compounds in their bodies. Ammonium salts are very seldom and nitrites not at all, used up directly by plants.

The researches of Prof. Dhar and his collaborators extending over several years have discovered an entirely new and at the same time economical method of " Conservation of the soil nitrogen and fixation of atmospheric nitrogen " in the soil itself by the use of molasses, the chief by-product of the sugar industry, a product which at the present moment is simply allowed to go waste and cause a great deal of nuisance to the vicinity of a sugar factory in this country. Molasses and press-cake which are also by-products of the sugar industry and are entirely wasted at present, have been successfully utilized for reclamation of Alkali Lands. These reclaiming agents appear better than gypsum or powdered sulphur used all over the world. The experiments of Prof. Dhar and his collaborators show conclusively that the *combined nitrogen* (that is, the most important substances necessary for plant growth), e.g., ammonium salts and nitrates are considerably increased when molasses are added to the soil and the soil well-ploughed. The molasses also contain a large percentage of carbohydrates. How is it that the addition of carbohydrates to the soil increases its combined nitrogen content? Just as carbohydrates on combination with oxygen of the air supply energy to the animals, the oxidation of the carbohydrates added to the soil with molasses sets free energy, which is utilized in the combination of atmospheric nitrogen and oxygen present on the soil surface leading to the formation of nitrates. The production of nitrates from air requires energy and this is supplied to the soil by the oxidation of the carbohydrates added with molasses. The nitrates formed in this way on the addition of molasses to the soil, which has been well ploughed, react with the carbohydrates with the formation of ammonium salts and traces of amino-acids and that is why an increase in the amounts of the ammonium salts is readily detected on the addition of molasses to the soil, which has been well ploughed. The ammonium salts thus formed in the soil are exposed to light and air and form nitrates by light absorption and also by bacterial action. Thus the most important nitrogenous compounds necessary for the plant growth, *i.e.*, nitrate is added to the soil, when molasses are used as manure.

Poor Crop Yield in India.

It is well known that crop production in India is quite inefficient

in comparison with the yield in other countries, as is evident from the following figures :—

Rice.

India	...	...	1,295 lb. per acre.
Japan	...	...	3,040 ,, ,, ,,
Egypt	...	...	2,783 ,, ,, ,,

Sugar.

India	..	...	2,400 lb. per acre.
Japan	...	...	3,340 ,, ,, ,,
Egypt	...	...	3,378 ,, ,, ,,
Java	...	...	11,988 ,, ,, ,,
Hawaii	...	...	18,799 ,, ,, ,,

This poor yield is mainly due to the chief defect of the Indian soil, i.e., the inefficiency of the important and potent plant food material—nitrogen compounds in them. Although there is plenty of nitrogen in the air, the majority of plants did not utilize the free nitrogen of the air, but required for their growth nitrogen compounds which they took up from the soil. Indian soil contains only 0.04 per cent nitrogen as against 0.1 per cent present in the soil of Europe and of other cold countries. It is gratifying to note that the Indian soil generally contains enough of potash, lime, phosphate and other necessary plant food materials. In advanced countries nitrogen compounds were manufactured in very large quantities and the fields were manured by these. India did not possess any nitrogen industry. This industry could be developed, if cheap electricity or any other cheap source of power were available, but India is lacking in these.

Molasses add Nitrogen to the Indian soil.

The researches of Prof. Dhar and his collaborators, notably Drs. C. C. Palit, Gopala Rao, A. K. Bhattacharya, S. P. Tandon, Atma Ram, S. K. Mukerji, Messrs N. N. Biswas, E. V. Seshacharyulu, S. P. Srivastava and Sundara Rao, have definitely established that nitrogen is added to the soil by the application of molasses. The sugars present in the molasses combined with the oxygen of the air with the help of

bacteria, sunlight, and substances like iron, manganese, etc., which are always present in the soil. In this process of oxidation (combination of sugars with oxygen) large amounts of energy are set free and this energy is utilised for the combination of the nitrogen and oxygen of the air forming nitrates and ammonia which are excellent plant food materials, the free nitrogen of the air cannot serve as food for most of the plants. Molasses not only adds nitrogen to the soil but also increases its humus content and the beneficial effect lasts over two years.

Prof. Dhar and his colleagues have been able to increase the soil nitrogen by hundred per cent on the addition of molasses. The crop yield has also been considerably increased in the molassed fields in comparison with the controls. Rice is highly benefited by the application of molasses, molassed land producing 14·5 maunds per acre as against 8·1 in the unmolassed field. The straw is also greater in the molassed than in the unmolassed field. Messrs Parry & Company of Madras and the Government Shahjehanpur Farm have obtained an increased yield of 40 per cent with molasses as manure in sugar cultivation. Prof. Dhar has made it amply clear that molasses must not be added to the fields when the crop is growing, but should be added 2 to 3 months before the sowing of the crop. After the application of the molasses the soil should be ploughed 3 to 4 times before the sowing, watering the soil is just the same as in ordinary cultivation. Prof. Dhar and his collaborators have always found that the moisture content of the molassed field is greater than the unmolassed.

In cold countries the soil temperature being low and due to the lack of sunshine, the sugar present in the molasses does not combine with the oxygen easily and hence the energy available from this process is too small for any nitrogen addition to the soil in temperate climates. This is the most important reason why workers in colder countries have frequently failed to obtain beneficial results on the application of molasses. Moreover, researches carried out in the chemical laboratories of the Allahabad University have shown that *Azotobacter* which is one of the agencies in the increase of nitrogen in soil is ineffective at temperatures lower than 10°C., but is very active at temperatures 20° to 50°C. That is why agriculturists in cold countries have not been able to utilize these bacteria in increasing their soil nitrogen. In tropical countries like India, however, *Azotobacter* may be suitable for

adding nitrogen to the soil when supplied with molasses, press cakes, etc., containing sugars.

Conservation of Soil Nitrogen by Molasses.

The results obtained by Prof. Dhar and his collaborators with the artificial fertilizer ammonium sulphate added to the soil with and without molasses show that the nitrogen of the molassed plots is always greater than that of the unmolassed ones. Hence molasses can act in the conservation of soil nitrogen. In tropical countries, a mixture of molasses and ammonium salts is a better fertilizer than ammonium salts alone.

Light utilized in Nitrogen fixation as in Photosynthesis in Plants.

The addition of nitrogen to the soil or manuring with molasses, cowdung, leaf, hay and other carbonaceous substances is much greater in the fields receiving sunlight than in those without it. Cowdung not only supplies the nitrogen it contains, but leads to nitrogen addition to the soil by fixation of the nitrogen of the air. This is a highly important phenomenon—in which large quantities of nitrogen of the air is being added to the soil in the combined state for the benefit of plant—because the plant residues either present in the soil or added to it get oxidised on the soil surface with the resultant formation of combined nitrogen. In this reaction either solar light or artificial light, is actually stored up for the benefit of mankind.

Nitrogen easily lost from Soil.

Nitrogen is a very elusive substance, and it does not remain in the soil for an indefinite period. According to Sir John Russell 60 per cent of the nitrogenous manure added to the soil is lost as nitrogen gas, 25 per cent is taken up by the plants and 10 per cent retained in the soil. This loss of nitrogen is mainly due to the formation and decomposition of the unstable substance, ammonium nitrate, formed on the soil surface from the nitrogenous compounds added as manure, and this process is accelerated by sunlight. This loss could be minimised by the addition of molasses and other carbon compounds. Hence the nitrogen added to the soil when manured by molasses remains in it for a much longer time than when added in the form of artificial manures like ammonium

sulphate and urea. Molasses has been found to leave a residual effect on the soil whilst artificial manure has no such effect.

Reclamation of Alkali (Usar) Land.

It is estimated that the total area of *usar* lands in the United Provinces alone is more than 4,000,000 acres. Dr. J. A. Voelckar, who examined the extent of alkali lands in Northern India, stated in his *Improvement of Indian Agriculture*, London, 1893 p. 55, as follows :—“ Enormous areas, especially in the plains of Northern India, are thus affected, and in the North-West Provinces alone there are between four and five thousand square miles of *usar* land.” In the Punjab, in Bihar, and in the south of India, there are vast tracts of such unproductive lands. Naturally the reclamation of these lands is a problem of great importance to India.

Defects of Alkali Lands.

The chief defects are :—

(1) The alkalinity—the PH is as high as 10·8. Neither Azotobacter nor nitrite-formers are observed in cultures obtained with these soils.

(2) The amount of calcium compounds is less in these soils than in normal ones. The amounts of exchangeable bases are less than in normal soils.

(3) The nitrogen content is small. In several samples examined the total nitrogen varies from 0·008 to 0·02 per cent, normal soils in India contain approximately 0·05 per cent nitrogen. The carbon content is also low.

(4) The alkali soil is highly impermeable to water.

(5) The alkali soil particles do not settle readily when shaken with water.

(6) The alkali soil lacks bacterial activity.

Reclamation.

The researches of Prof. Dhar and his collaborators show that for the reclamation of alkali soils molasses can be very usefully applied.

It is well known that molasses contain between 60 to 70 per cent. of carbohydrates (sugars), 4.5 per cent potash, 2 per cent lime, 0.5 per cent phosphoric acid, 0.5 per cent iron and aluminium oxides and 0.5 per cent combined nitrogen and the rest water. Moreover, molasses is distinctly acidic. Research work carried on in Allahabad, Bangalore, Java, Hawaii and other sugar-producing countries shows that when molasses is added to the soil, along with carbonic acid, organic acids are produced in the early stages in the decomposition and partial oxidation of the carbohydrates present in the molasses. The acids thus produced together with the acids present in molasses can neutralize the alkali of the soils rich in alkali. Moreover the carbonic acid which is produced in large amounts from the decomposition and oxidation of the carbohydrates can convert the sodium carbonate into bicarbonate. Also in the process of the escape of carbonic acid from the molassed soil, the latter is rendered porous and its tilth is improved. The lime which is added to the soil along with the molasses is rendered soluble by the organic acids formed from molasses and is helpful in the conversion of the sodium soil (alkaline soil) into the calcium one, which is the normal soil.

The soluble calcium salts are helpful in the improvement of the soil tilth by their flocculating power on the clay particles. Moreover in the presence of soluble calcium salts, the permeability of the soil is greatly improved. The results of Dr. Dhar and his collaborators show that molasses is a better reclaiming agent for alkali land than either gypsum or powdered sulphur, as there is nitrogen loss from soils when these latter reclaiming agents are added to alkali soils whilst molasses adds nitrogen. The reclaiming effecting of molasses is much quicker than that of gypsum or powdered sulphur, because the acids formed from molasses neutralize the alkali quickly and the soluble calcium salts added with the molasses improve the tilth and permeability of the soil. It has been reported that four years are necessary for reclaiming alkali lands on treatment with gypsum or powdered sulphur, but with molasses two months are quite adequate.

Alkali lands have been successfully reclaimed in different parts of the United Provinces and in Mysore by the application of molasses, and good crops are growing in these reclaimed areas, where no vegetation ever grew.

Reclamation of Alkali Soil by Press-Mud.

It appears that nearly 300,000—400,000 tons of press-mud are being turned out by the sugar factories in India. This substance containing calcium salts, carbohydrates, and nitrogenous compounds are practically wasted. Experimental results obtained in the chemical laboratory, Allahabad, show that when bad alkali soils ($\text{PH} = 10.8$), are mixed with press-mud, the PH becomes much less and the alkali soils completely coagulate, showing increased permeability and flocculation of the particles. The calcium salts present in the press-mud convert the sodium soil into a calcium one. It appears, therefore, that the press-mud also is an excellent reclaiming agent for alkali soils. As press-mud is a solid substance and easy to transport, it should be largely utilized in reclaiming alkali soils.

As early as 1874, the Irrigation Department of the North-West Provinces was trying to reclaim *usar* land and in 1877 a "Rel" Committee was appointed to investigate the problem. Subsequently, experiments were started at Awa in 1879, at Cawnpore in 1882 and at Aligarh in 1885. Unfortunately as no qualified chemist was associated in these experiments, no substantial results were obtained as is evident from the following lines written by the Director of Agriculture, U. P., in his letter of November 13, 1935 :—

" *Usar* reclamation experiments were carried out by this Department at Juhi (Cawnpore) and Abhaspur (Unao) without appreciable results and the *babul* plantations at the places were transferred to the Forest Department. The matter may, therefore, be please referred to that Department."

The late Dr. J. W. Leather, who was the Imperial Agricultural Chemist, carried on the analysis of the scrapings from *usar* fields near Aligarh and other parts of U. P. and also tried to reclaim *usar* land by applying gypsum. His results show that no wheat grows on soils containing 0.008 per cent to 0.082 per cent sodium carbonate even when treated with gypsum.

Leather's conclusions are as follows :—

- (1) " The only experiment which can claim to have really reclaimed the *usar* land is the application of gypsum. The cost of sufficient gypsum to effect this was very great—

Rs. 700—800 per acre—and is obviously prohibitive. Even if the cost of gypsum could be reduced to one-half (what was employed cost Rs. 20 per ton) it would still be too expensive if required in the quantity that this land did require it.”

(2) “ The effect of deep and good cultivation coupled with heavy manuring has not been either what is indicated to the unaided eye nor what might have been anticipated. The surface foot of soil has been apparently reclaimed, but below this the soil is as bad as ever.”

(3) “ Scraping off the salts is practically useless.”

(Compare *Investigations on Usar Land in U.P.* by J. W. Leather, Allahabad, 1914, p. 37.)

Field Trials with Molasses in the Reclamation of Alkali Land.

In 1935 the Agriculture Department of the Mysore Government applied to several fields 1 ton of molasses per acre of alkali land three weeks before the transplantation of rice. 1200—1800 lbs. of rice grains per acre of alkali soil were obtained in the molassed fields where the crop completely failed in previous years. The normal production of rice in India is 1295 lbs. per acre. As the Mysore Government is highly satisfied with these results they have extended their reclamation experiments to over 100 acres of alkali lands. This Government is hoping to be able to reclaim all their alkali land by the by-products of their sugar factory according to the method developed in the Chemistry Department of the Allahabad University.

In Bihar, in U.P. and in the Punjab molasses have been utilized in reclaiming alkali land using 3 to 10 tons of molasses per acre depending on the nature of the alkali land. Very bad alkali lands have been reclaimed permanently at Soraon near Allahabad, **Government** Farms, Unao, Sahajahanpur, Cawnpore, Mainpuri and other places where excellent crops of rice have been obtained.

Mixtures of molasses with press-mud (half and half) have been found to be very effective in reclaiming bad alkali soils. As molasses contain 2 per cent lime in a soluble form and as press-mud is also very rich in lime, the alkali soil which is a sodium soil is converted into a calcium

one, that is, a normal soil—when molasses or a mixture of molasses and press-mud are added to an alkali soil.

As the sodium of the alkali soil is replaced by calcium by this treatment the reclamation is permanent. Land reclaimed by molasses after first treatment has been found to produce rice for 4 years or more without further treatment of molasses.

Mr. H. N. Batham, Dr. B. K. Mukherji, and others working at Cawnpore, Dr. Mirchandani at Sabour, Bihar, Dr. Basu at Padegaon, Bombay, and others have confirmed the results obtained in the Allahabad Chemical Laboratory.

Cost of Reclamation Per Acre.

Even very bad *usar* lands can be reclaimed permanently by applying 10 tons of molasses or a mixture of 5 tons of molasses and 5 tons of press-mud per acre.

The maximum cost involved per acre is approximately eighty rupees, whilst the cost according to the European method by gypsum treatment of reclamation is not less than rupees eight hundred. Moreover the gypsum treatment does not add nitrogen to the soil which is the crying need of Indian soils—whilst the molasses treatment enriches the soil with calcium, phosphate, potash and above all nitrogen.

Statistics show that only 0·75 acre of land under cultivation is available per head of the population in India as against 2·6 acres in U.S.A. and 2·3 acres in France. Hence we have to face the staggering evidence that we have in this country very little land for a unit of population. Hence land reclamation is of vital importance for the welfare of the masses in India.

Frederick the Great's Credo when he was 35 was "I love war because of its glory and fame." His belief at seventy was "to drain swamp lands, to reclaim waste land and to improve one's territory constitute the victorious march against barbarism." This great German's motto should be the watchword of every Indian to-day, as the crop yield is low and very little land is available per head of population in India.

A PRACTICAL SCHEME OF RURAL RECONSTRUCTION IN U. P.

By MR. DAYASHANKAR DUBEY, M.A., LL.B.

The following are the foundations on which any stable scheme of rural reconstruction should stand :—

1. The old Panchayat spirit should be revived and galvanised into dynamic activity

(a) by organising a network of village societies on co-operative lines to attend to the rural reconstruction activities in their respective villages;

(b) by reorganising these societies as statutory bodies with some administrative and judicial powers to enable them to discharge these duties efficiently;

(c) by helping these societies to be financially fit and self-supporting;

(d) by training the Panchayats of these societies in their newly extended rights and obligations.

2. An administrative machinery should be so devised as to ensure a continued economic, social and cultural growth of these societies.

3. To advance the agricultural and industrial prosperity on the countryside, a system of cooperative finance should be so instituted as will enable the members of these societies to command credit at a cheap rate of interest.

4. In case there are already some forces or agencies in operation which thwart the progress of these societies by exploiting the ignorance of the peasantry, the State should devise ways and means for putting an end to these hindrances. Among these hindrances may be mentioned the Bayayi system in marketing and the Ogahi system in money-lending.

A scheme of rural reconstruction which aims at giving monetary aid to the cultivators or the associations at random from a sympathetic point of view will work only as a palliative. It may engender new diseases of mendicancy and helplessness amongst the cultivators. The village people will have to be made improved-minded to tap their own resources, to think and plan the scheme for their own advancement under the advice of more experienced men who will work in a missionary

spirit as friends, philosophers and guides to these societies. The initiative for any activity must come from the village people and the whole work should also be executed by the village people, if it is to have any permanent result. Rural reconstruction should only aim at putting the village people on the right track so that they might make a normal progress in the direction of material, social and cultural prosperity.

Organisation.

1. Better living cooperative societies should be formed, one for each part of a bigger village or one for the whole of a smaller village as against present rural development associations for the whole village comprising all its various Purvas. The reasons for this are that in a Rural Development Association :—

- (a) the holding of meetings becomes difficult;
- (b) the problem of hamlets sometimes differ; and
- (c) there is a probability of Brahmins, Thakurs and other powerful men dominating these associations.

The primary better living cooperative societies should be autonomous bodies with freedom to cooperate with others for mutual benefit.

2. The primary better living societies would be formed in such villages or part of villages as have families in them ranging from 75 to 250. Hamlets with families less than 75 may be tagged together or incorporated in the neighbouring primary societies.

3. As it has been said above these Better Living Societies should enjoy administrative and judicial powers.

4. The State should help these societies to make them financially fit and self-supporting in the following manner :—

- (a) One of the bye-laws of these Better Living Societies should provide that every household should pay a Fasli Chanda or half-yearly contribution in kind to the extent of 5 seers per Fasal. Under the cooperative law this can be collected by the society by obtaining an award against the defaulter. It is calculated that in a Better Living Society with a membership of 100 families the proceeds of the Fasli Chanda would come to Rs. 75 annually.

- (b) Should the State adopt a policy of debt redemption on the lines of the Bhavnagar Durbar plan, the peasantry will not only be debt-free in a period of 9 years but this will effectively put a stop to money-lending of Mahajans and their methods of exploiting the cultivators. This will necessarily entail the responsibility upon the Better Living Society to arrange for cooperative finance. The Secretary Pay Fund or the income of the society which is the margin between the rate at which money is borrowed from the bank and the rate of lending to its members will be enormous. At the minimum we should expect a margin of profit at rupee one per household. This will bring an income to the society of not less than Rs. 100 per annum.
- (c) If the State decides to give a contribution from the land revenue assessed by it from the members of these societies to the extent of 10 per cent just as they do in the case of District Boards, the Better Living Society would permanently be placed on a sound financial basis. This move will work in the eyes of the people as a measure of reduction in land revenue, since the money would directly go to them. Secondly those villages alone would claim this contribution who have formed themselves into a cooperative Better Living Society, the measure would work as an incentive for forming these societies which necessarily means also that the members would pay Fasli Chanda in kind. The cumulative effect would be that finances of such societies would be on firm footings.

To attend to all the rural reconstruction activities, to run an elementary school of a lower primary grade in the village for three hours in the morning and to conduct an evening club for the diffusion of knowledge amongst the adult cultivators, a Village Guide (ग्रामसेवक) on a salary ranging from Rs. 7 to Rs. 12 per month would be appointed by the society from out of its funds. This Village Guide would be an enthusiastic youngman of the locality with some educational qualification. The pay of the Village Guide will be the first charge on the budget of the village society.

It would be seen that with proper propaganda and other measures Better Living Societies can easily be formed in every village and a Village Guide can be paid out of the funds of the societies to look after their activities. This can be done without materially taxing the provincial revenue.

The difficulty of organising such Better Living Societies can be solved by appointing a batch of 10 patriotic workers in each district to work as organisers. With their spirit of social service and training into the art of organising cooperative societies which can be given to them in the course of a month, the work of organisation can be much facilitated. They would be helping the official machinery also.

Twenty such village Better Living Societies would form a group association of their own, for purposes of coordination and would be placed under an Organiser or a Supervisor. 8 or 10 such groups would form a Union of societies. Thus in an area of a radius of 10 miles we shall have generally 160 to 200 Better Living Societies, placed under a Rural Reconstruction Inspector who may be called a Circle Officer. The District would be divided into 8 or 10 such Circles or Unions.

At the headquarters of an Organiser or a Supervisor a middle school for the benefit of boys between the ages of 9 and 13 would be run. At the headquarters of the Rural Development Inspector or a Circle Officer the following institutions would be established for serving the area :—

1. The Vernacular High School—Instruction in all the important subjects except English should be imparted in this High School. In place of English, special training in Agriculture and in Cottage Industries of that area would be given to the scholars.
2. The Instructor in Agriculture would be in charge of the Seed Store and Store for agriculture implements.
3. The Instructor of Cottage Industries would be in charge of marketing of the products of the cottage industries.
4. There would be a Civil Dispensary in charge of a Sub-assistant Surgeon.

5. There would be a Veterinary Dispensary. The Veterinary Assistant Surgeon in charge of the Veterinary Dispensary would also be in charge of cattle breeding.
6. In the Vernacular High School, a Central Library would be located, and sets of books of the circulating library would be supplied to the village societies through the Supervisors or the Organisers.

The Village Guide will be *ex-officio* Secretary of the village Better Living Society. The Organiser or the Supervisor would be an *ex-officio* Secretary of the Group Association and in the same manner the Rural Development Inspector or the Circle Officer would be the *ex-officio* Secretary of the Union. Matters of policy would be decided by the Associations and the Unions and the official workers will be there only to advise and guide as well as to carry out the policy of these bodies.

Ordinarily there would be two or three Unions in each Tahsil according to its size. At the outset a question arises. Whence are we to get such a large number of paid workers, *viz.*, the Circle Officer, the Supervisors etc.? The staff for the Middle Schools and the Vernacular High Schools can be had by re-organising the education system of the District. A large number of one-teacher schools would be closed since elementary education of the lower primary grade goes into the hands of the village societies. Most of the Supervising Staff can be had by unifying the services of all the nation-building departments in the district under one District Rural Development Officer.

The Nation-Building Departments.

Every nation-building department has to discharge four-fold functions :—

- (1) Research.
- (2) Training of workers.
- (3) Preparation of schemes for introduction.
- (4) Execution of the schemes.

It is proposed that the first three functions may be retained by the departments while the execution of the schemes may be entrusted to the District Rural Development Officer. The following officers of the

nation-building departments would be available for working the scheme :—

	A Class.	B Class.
1. <i>Education.</i>	One Deputy Inspector of Schools.	Three or four Sub-Deputy Inspector of Schools according to the number of Tahsils.
2. <i>Health.</i>	One District Medical Officer of Health.	Three or four Sanitary Inspectors according to the number of Tahsils in the district.
3. <i>Cooperation.</i>	One Cooperative Inspector.	Four or five Supervisors.
4. <i>Agriculture.</i>	One Agricultural Superintendent.	Three Inspectors.

Other nation-building departments such as the Veterinary Civil Hospitals, Cattle Breeding, Fruit Culture Industries have sometimes their own officers. The present system of administering services has the following defects :—

- (1) Departments work independently. The officer have to tour long distances in which much of their time and energy is frittered away.
- (2) More of State money is spent on the supervision than on workers who are to deliver the goods of the nation-building departments to the peasantry.
- (3) A sort of confusion arises in the minds of the cultivators by the multiplicity of the officers coming and going and most of the villagers do not know what they come for.
- (4) Coordination was tried in the Punjab and U. P. and elsewhere but it has not yielded satisfactory results so far.
- (5) A unified agency to attend to all nation-building departments is likely to work much better.

It will be seen that we can easily get four Sub-Deputy Inspectors of Schools, four Sanitary Inspectors, four or five Supervisors and three Agricultural Inspectors as detailed in B Class to work as Rural Development Inspectors or Circle Officers. They belong to the similar cadre and in the recruitment of the Rural Development Inspectors persons of this cadre were taken. With a training of three or four months these officers can be given charge of the Unions.

Staff at the Sadar.

In the above distribution of officers the following officers have not been taken into account :—

- (1) District Medical Officer of Health. Our scheme proposes that he should be taken up in the executive line. The post is really superfluous and in his place a junior Sub-Divisional Officer of 5 years' standing with a strong executive capacity be taken up to work as the Rural Development Officer. The Co-operative Inspector, the Agricultural Superintendent and the Deputy Inspector of Schools would be working under him. The Agricultural Superintendent will have to attend to a District Agriculture Farm, a District Seed Store and a Nursery of Fruit Plants.
- (2) The Co-operative Inspector who would now be in charge of the Central Bank of the district.
- (3) The Deputy Inspector of Schools will as usual be inspecting the Vernacular High Schools, Middle Schools and would be in charge of the educational and cultural activities of the district.

The District Rural Development Officer will be the *ex-officio* Secretary of the District Rural Development Association. This association will consist of all Sarpanchas of the Unions and an equal number of prominent non-officials of the district.

The above is only a framework of the scheme of the Rural Reconstruction.

A number of departmental schemes, notably those connected with debt-redemption, the co-operative credit and the educational system, will have to be revised; but this will have to be done in consultation with the heads of the departments.

Cost of the Scheme.

Under the scheme the following would be the paid staff :—

Designation.	No.	Remarks.
District R. D. O.	One for each district.	He will be taken from the executive staff in exchange for D. M. O. H.

Designation.	No.	Remarks.
Agricultural Superintendent.	One for each district.	They are already on the Staff of the various departments in each district.
Cooperative Inspector.	One for each district.	
Deputy Inspector of Schools.	One for each district.	
R. D. I. or the Circle Officer.	One for each union.	
Supervisors.	8 for each Union.	
Village Guides.	One for each Society.	New post. They would be on the budget of the B. L. Societies.
Veterinary Assistant Surgeon.	One on Rs. 40 p.m. (for each Union), Rs. 480	New Post.
Sub-Assistant Surgeon.	One on Rs. 50 p.m. (for each Union), Rs. 600	Ditto
Patriotic Organiser.	One on Rs. 40 p.m. (for each Union), Rs. 480	Ditto

For each union, it would not cost the Government more than Rs. 1,600 (new direct expenditure) and if the scheme is to be extended over the whole district with 8 unions it comes to Rs. 12,800 per district. It has to be noted that on items of veterinary and civil dispensary, Government is already spending some money. Actually new direct expenditure should not exceed Rs. 10,000 per district and therefore for the whole province the new direct expenditure would be about 5 lakhs of rupees per annum. This year's additional grant of 10 lakhs would be spent on special scheme—such as village libraries, encouragement of cottage industries, etc.

It may be noted that the above cost does not include the contribution of the Government of 10 per cent Land Revenue to the funds of the Better Living Societies. As the number of such societies increases, the amount of contribution is bound to increase. In the first year, if the scheme is properly worked in a sympathetic and missionary spirit, about 10,000 Better Living Societies can be easily organised benefiting about one-tenth of the rural population in these provinces. The Government contribution of 10 per cent of Land Revenue to these societies in the first year will not be greater than 7 lakhs of rupees.

Merits of the Scheme.

The following merits are claimed for this scheme :—

- (i) It combines self-help with Government Assistance.
- (ii) The initiative and the actual work of rural reconstruction is left to the village people themselves. The officers are there to guide and advise.
- (iii) It leads to the unification of the activities of various nation-building departments under one head in each district.
- (iv) With the minimum of cost, maximum of benefit is secured for the rural population. With the direct additional expenditure of 5 lakhs of rupees and a contribution of 7 lakhs of Land Revenue to the village Better Living Societies nearly one-tenth of the rural population can be benefited in the first year.
- (v) Within a period of 10 years all the villages of the province can secure the benefit of the scheme.¹

THE ZAMINDARI SYSTEM

By MR. LALLA RAM TEWARI, B.A., I.L.B.

The zamindari system has, of late, become one of the burning topics of the day. In the United Provinces, which are among the strongholds of this system, it has come in for much adverse criticism at the hands of Congressmen and also some others, mostly non-zamindars. The influential zamindars are out to defend the system with all their might. They contend that the zamindari system is an *ancient* institution of this country. According to them, any attempt to disturb the system would be an act of sacrilege. They admit that the condition of the tenantry is deplorable, and profess every sympathy with the tenantry, but have not, so far, come forward with specific suggestions to improve their lot.

¹ This scheme has been drawn up by me in consultation with Mr. A. B. Mande, M.A., Adult Education Inspector, Fatehpur. It has been submitted by me to the Honourable Minister of Development and Justice, U.P.

The antagonists of the system, on the other hand, look upon the zamindars as usurpers and squatters. They regard them as parasites on land who have retarded agricultural development and national progress. They would send the zamindari system out of the country without shedding a tear of remorse. A sharp cleavage between the landlord and tenant is noticeable everywhere, and it is apparent that unless a satisfactory solution is found, it is bound to lead to a serious disturbance of the peace and prosperity of the country.

An attempt will be made, in these pages, to trace out the origin and development of the zamindari system and point out the tremendous effect it has had on the peasantry, agricultural development and national prosperity. Some suggestions for the reorganization of the system and the establishment of harmonious relations between the landholder and the tenant will also be made.

The Hindu Period.

There was no zamindari system in the Hindu period of the history of this country. The idea of landlord and tenant was then unknown. There was no intermediary between the actual cultivators of land and the king. The cultivators had direct dealings with the state, and were, for all practical purposes, masters of the land they cultivated. In the later stages of this period, no doubt, certain intermediate interests came to be created and recognised. They were the interests created in favour of the members of the royal family and also in favour of certain other persons as an act of special patronage. But there were no encroachments upon the rights of the peasantry which continued to enjoy permanent rights in the agricultural holdings.

This was really the best period in the history of the peasantry. The population then was not so large as now. There was more cultivable land than needed. The result was that there was no competition for the land. The soil was more productive, and whatever the cultivator had to pay, for the use and occupation of the land, was practically nothing in comparison with the excessive and exorbitant rents of the present day. The Manu-Smriti tells us that occupiers of land paid from one-twelfth to one-sixth portion of the produce from land as tax or revenue to the king. It was only during wars or invasions that the cultivator was called upon to contribute one-fourth share of the produce

from land. This was the maximum that the state could demand at any time.

Mohammadan Rule.

There was little change in the position of the peasantry in the early stages of the Mohammadan rule. The Hindu system of land administration was generally maintained by Moslem rulers. The peasantry continued to hold the land with hereditary rights on payment of a fixed proportion of the produce from land as revenue to the state.

Among the Moslem rulers, the reigns of Sher Shah Sur and the great Moghul Emperor Akbar are landmarks in the revenue administration of this country. The ground was prepared by the former to whom all credit for the spade-work must go. It was he who ordered a correct survey of the cultivated land, and fixed the government revenue after ascertaining the average produce from the soil. Akbar adopted the schemes of Sher Shah and considerably improved upon them with the wise assistance of his sagacious minister Raja Todarmal. The state demand, in the time of Akbar, was one-third share of the gross produce from the land. It could be paid in kind or in cash. The settlements were originally annual but were subsequently made decennial.

The peasantry was happier in the reign of Akbar than in the reign of any other Moslem ruler. That astute emperor realised that the cultivators of land were the backbone of the state, and that it was on their prosperity that the prosperity and strength of the state depended. He took every possible care to see that the peasantry was happy and contented. He was strictly opposed to the farming of the revenue because he knew that that meant certain oppression to the peasantry. He preferred to deal with the peasants directly.

Dawn of Zamindari System.

The successors of Akbar, however, gradually abandoned his policy. It seems their ease-and-pleasure-loving habits left them little time to look to the welfare of the masses. The systematic settlement of land revenue, based on periodical adjustment of rates, was shelved and gave place to frequent and capricious increase in the state demand. As regards the collection of land revenue, it was thought that it would be more convenient and profitable to deal with a few influential middle-

men than with the large and increasing body of the actual cultivators of land. The result was the adoption of the system of revenue farming which Akbar so much disliked. This paved the ground for the introduction of the zamindari and taluqdari systems and laid the foundation of the present status of the peasantry. It was really a bad day for the peasantry when this system was first adopted.

The revenue farmers collected the government revenue, paid about nine-tenths thereof to the state, and retained the remaining one-tenth share as their remuneration. In course of time, however, after paying to the government the fixed amount, they were free to appropriate to themselves the surplus rents and profits realized by them. In this way the peasantry was left entirely at the mercy of these middlemen who were naturally interested in extorting and exacting as much as they possibly could from the peasants.

By and by the office of revenue farmers became hereditary, and as time wore on, they acquired many more rights and privileges in the lands and villages that were in their charge. Gradually they came to acquire private rights of property in land interstratified between the state and the immediate holders of the soil. They became the virtual owners of all land cultivated and uncultivated. They came to be recognized as landholders or landlords, and the actual occupiers of land sank into the position of mere tenants.

It was in this way that a system, which was unknown and undreamt of in the early history of the country, came into existence. It was a sort of feudal system. The state had not much to lose from it. It got its revenue and was saved much of the cost and botheration of collecting it. But the system reduced the peasantry to the position of serfs and vassals. The Mohammadan rulers had created the system and encouraged it; but they did not care to define the exact rights of the landlord and the tenant. The result was that the tenant was placed entirely at the mercy of the landlord, and the will and pleasure of the landlord was the law for the tenant.

The British Period.

The zamindari system had come to stay. It was adopted also by the British Government in places where it was in vogue. But the advent of British rule improved matters in two respects: It afforded a

much greater security to the life and property of the people. It also defined the exact rights of the zamindar and tenant. To these provinces it gave the Agra Tenancy Act and the Oudh Rent Act.

The shrewd and democratic mind of the British people could not fail to perceive the low depths of poverty and misery to which the once happy and contented peasantry had been reduced by the zamindari system. The British Government had, undoubtedly, every sympathy with the down-trodden tenantry. It was anxious to help it and elevate it. In fact, when Oudh was annexed in 1856, the policy was to make settlements of revenue with the parties in possession without the interposition of middlemen. Lord Dalhousie ordered a summary settlement of Oudh, on this basis, for three years. But before the settlement operations were over, the Mutiny of 1857 broke out. It was believed that the discontentment of taluqdars, due to their exclusion from settlement, was one of the main causes of the mutiny. What was worse, even the village communities whose cause the British Government had so boldly championed, joined the ranks of the discontented taluqdars and revolted against the Government. This led to a reversal of the policy of Lord Dalhousie, and it was decided to make settlements with taluqdars and other landowners.

The British mind became cautious and has been cautious ever since. The Government dropped the idea of wholesale reform and adopted the safer and more convenient method of piecemeal legislation, for the benefit of the tenantry, with the consent and cooperation of taluqdars and zamindars. In these provinces the Agra Tenancy Act and the Oudh Rent Act were amended and re-amended from time to time, and every time some new and better rights were conferred upon tenants. Some new rights had also to be created for the benefit of zamindars with a view to induce them to agree to the amendments. In fact, the policy has throughout been one of compromise—concession to the tenant by the zamindar, and concession to the zamindar by the Government.

This plan has naturally failed to satisfy the tenantry which does not find any appreciable improvement in its general condition. The tenantry clamours and agitates for more substantial rights. There can be little doubt that the condition of the tenantry, specially in the

province of Oudh, is most appalling, and it deserves sympathy and support from every quarter.

The Need for Reform.

There can be no doubt in the mind of an impartial observer that the zamindari system has not been in national interests. It has lavishly fed and continues to feed a few at the expense of many whom it has starved and crushed. It has retarded the development of agriculture—the principal industry of the country—and has indisputably obstructed national prosperity. While it must be admitted that, among the taluqdars and zamindars, we have some of the most cultured, benevolent and patriotic gentlemen of this country, who have always tried and are trying to promote the welfare of their tenants, there can be no gainsaying the fact that the zamindars, *as a class*, have miserably failed to fulfil their obligations towards the tenantry. A majority of them have done practically nothing for their tenants. True to their traditions as revenue farmers, they have simply tried to squeeze out all they could from their tenants by ejecting them from time to time and enhancing their rents. The fact of the matter is that they have ruined not only their tenants but also themselves. It is clear that but for the institution of the Court of Wards, many of our bigger taluqdari and zamindari estates would have by now been wiped out.

There is a strong case for reform. But what shape is the reform to take? Expropriation or total abolition of the zamindari system? I for one am not for expropriation with or without compensation. That will be revolution and not evolution or reform. The zamindari system has been in existence for a pretty long time. It has taken deep roots in the soil of this land. In my opinion it will be monstrous to banish it after having allowed it to live and grow for such a length of time. The tenant too does not agitate for its wholesale abolition. What he is really anxious for is the fixity of tenure and a liberal reduction in rental. Moreover, the system itself is not so bad as the form and manner in which it has hitherto been maintained and worked. The system, in its present form, has become degenerate and demoralized. What is needed is not so much a killing of the system as a proper and systematic treatment of its diseased parts. There ought to be a thorough overhauling of the system.

New Angle of Vision.

The agrarian problem has to be approached from a new angle of vision. The Government and zamindars have to revise their attitude towards the tenantry. Tenants are no longer to be regarded as serfs and vassals whose only mission in life is to cater to the comforts and luxuries of the zamindar. They are to be treated with greater courtesy. All false notions of prestige are to be cast aside like a worn-out coat. The tenant is to be regarded as a partner entitled to a decent share in the huge wealth he produces with the sweat of his brow. This was the position he held up to the time of Akbar. The policy of patch-work legislation has to be given up for good. A scheme has to be devised which will finally settle the agrarian question on a just and stable basis. The zamindar must make some sacrifice. He must forgo some of his powers and raise the status of the tenantry. In this way only can we expect the establishment of healthy and happy relations between the two great classes upon whom the moral and material advancement of this land depends.

THE WAY TO PROSPERITY

By MR. J. K. MEHTA, M.A.

Mahatma Gandhi and his followers have been telling us that in the modern economic system man has become a slave to machinery. Probably machinery has not become our master in every sense of the word. Yet no one can deny the fact that in the modern world human interests have in many cases been sacrificed at the altar of machinery. It seems therefore that the Mahatma has appropriately expressed the relation of man to machinery by assigning to the former a position of subordination to the latter.

I think, however, that a fuller view of the present economic order would allow us to go a step further in the direction pointed out by Mahatma Gandhi. We are slaves, I feel convinced, not only to machinery but to all kinds of wealth that we have been producing for our use. Is it not a fact that very often in the modern industrial system

man has been made to exist for wealth rather than wealth for man? That in this age of plenty man should have to toil from morning to evening under most trying conditions of work or to remain completely idle in spite of the willingness to work appears to me to supply a practical demonstration of the principle that to-day man has to work and live not for his own good but in the interest of lifeless commodities.

We can to a great extent remedy the situation through socialisation of the means of production or central planning. But would not such a system make man a slave to ordered and disciplined behaviour?

The problem with which we are faced appears, therefore, to be twofold. In the first place, our troubles are due to the immensely complicated system of production based on division of labour between the 200 crore of people spread over the entire surface of the globe. In the second place, they are due to the ever increasing number and varieties of goods and services that are being produced in an unsuccessful attempt to satiate the wants of man. The larger the number of these goods and services the greater must be the complication and more difficult our task of preserving a balance between the production and consumption of the various commodities and services.

It should be clear, therefore, that if we want to be masters and not slaves there are two directions in which our efforts and energies must be directed. First, we should break up the world into smaller areas independent of one another and thus usher in an era of national self-sufficiency. In so doing we shall have to give up many of the economies of production that are secured through territorial division of labour. We shall probably have to content ourselves with a smaller number and fewer varieties of goods than are available for use to-day. But these minor disadvantages shall be more than counterbalanced by greater security of employment and more settled economic conditions within the country. And what more can we desire than a system in which at least the minimum of subsistence is assured to all those who are able and willing to work and in which the risk of abrupt changes in demand are greatly minimised and the loss of capital values and waste of human resources successfully prevented. During the last hundred years or so man has tried in vain to secure by means of international trade the multiple advantages of specialisation and mutual exchange without its dreadful disadvantages. His failure has taught him one lesson, namely,

that it is idle to hope now that in the future he can so manage economics and politics as to eliminate the great risks of international trade and retain its benefits.

Whether such a system of national isolation is possible or not is a different question. Probably, it is not a lasting possibility. But what on this constantly changing world is permanently possible? Under the present circumstances, with the knowledge of the lessons that economic history has taught us, we can think of only one thing and that is to abolish the system of international trade and satisfy ourselves with a smaller but surer national dividend.

Unemployment is perhaps the greatest single evil of the modern economic system; and the most important cause of this unemployment consists in abrupt and unexpected changes in demand and supply. International trade is one of the most potent causes of such uncontrollable changes. With the break-up of the system of international trade shall disappear also the various other problems of foreign exchanges, tariffs, and international lending.

But the mere abolition of the system of international trade cannot solve the problem entirely and raise us, as I have said above, from the position of slaves to that of masters. If we have to preserve the equilibrium of the economic system we must ensure that the proper balance between the production and consumption of the various commodities is maintained. Even a national system of production modelled on the present lines would be so complicated as to make the task of preserving this balance immensely difficult. What we need to do, therefore, is to restrict the variety of goods produced and services performed by the people of a country. For, the fewer the varieties of commodities produced the easier is the task of maintaining the economic system in a position of stable equilibrium. But we cannot restrict the output without controlling our wants. What is really necessary, therefore, is to make a determination to go backward instead of going forward as we have been doing all these years. Probably we cannot succeed in going back to Nature if by that is meant adopting the ways of the savages. Nor do I think that would be the right thing to do. What we need to do is simply to make our life simpler than what it is to-day and to check all social tendencies that would in any way operate to raise our standard of living. A new philosophy of life

would be necessary on which to idealise. When eventually we succeed in controlling our wants we shall feel a new joy in life—a simpler, smoother and more innocent existence.

BETTER CATTLE, MORE AND BETTER MILK

By DR. SAM HIGGINBOTTOM. M.A., D.PHIL.

India contains more than one-quarter of the world's cattle, though she has only about one-sixth of the world's human population. This means that she has many more cattle in proportion to her area and population than any other equal area of the earth's surface.

India has far too many cattle for the cattle work:—draft and milk production, that has to be done; or for the food supplies available for cattle. But because of the poor quality of the cows, milk in India is scarce and dear. These surplus cattle are the most serious competitors of man for the produce of the soil. I endorse a policy of birth control for cattle.

The cow is a domesticated animal. That is, it has been taken from a state of wildness, and taken into partnership with man. Because cattle are domesticated man can control their breeding and he must control, if better cattle are to be. There is one sure way to improve the quality of Indian cattle:—that is, to breed only from the best. If poor cattle are mated the offspring is poor. If good cattle are mated good offspring is likely to result.

India is dependent upon her cattle for: (a) Power, and (b) Milk. The ox provides almost all the power for tilling India's cultivated acres. The power of an ox depends upon size and weight, the bigger and heavier he is the greater his power. Bigger and heavier oxen would enable larger farm implements to be used with better cultivation and larger yields. Heavier oxen depend upon the breed, the feed, the geographical location. India has several breeds of good draft animals. These can maintain their size only if they are properly fed. Inadequate feed will stunt the growth of the best breeds. Again certain tracts of India seems to have certain nutritional deficiencies in the crops grown, so that cattle fed on these crops fail to grow to the size and weight

they would, were they brought up in an area where these deficiencies do not exist. India has done little to develop cattle with large milk-giving capacity. India values a good draft bullock higher than she values a good dairy cow. A really first-class dairy cow can produce much more profit than a first-class bullock.

The importance to India of good-milk cows is almost impossible to exaggerate. Milk is probably the largest source of farming income in the world. The appalling death-rate among the children in India just about the time of weaning is due largely to the fact that a supply of good, cheap milk is not available.

Few countries on earth are more favourably situated for good dairy cattle than in India. There is an abundance and variety of fodder crops as Napier grass which under proper conditions gives over 100 tons of green succulent fodder per year per acre, Guinea grass which will give 60 to 70 tons per acre. These home-grown cattle foods, if fed to a reasonable number of good-quality cattle, would mean that the cattle could be in the finest condition: The oxen for work and the cows for milk.

The ability of a cow to give a large amount of milk of good quality is an inherited character. No amount of feeding, no quality of food will enable a cow to give more milk than her inherited capacity permits her to give. If a cow has an inherited character to give 3 seers a day, no amount of feeding or quality of food will cause her to give more.

The *gwala* usually explains that the poor quality of the milk of his cow is because he is too poor to give the cow good nutritious food. The quality of milk is little affected by the quality of the food.

The pooriness of milk may be due to one of three things: First, the cow may belong to a breed where the average butter fat content is low. The great dairy breeds vary much in the percentage of butter fat. The cow cannot change the quality of her milk; nor can feed change the quality of the milk except within very narrow limits. The quality of the milk of the individual cow being an inherited character is as unchangeable by human effort as is the length of her tail or the colour of her hair. Granted that a cow has the capacity to give a large amount of good rich milk, if that cow is underfed, or fed poor feed, the quality of the milk will not change, but the amount of milk will be less than if she were properly fed. In dairying, two things are counted to be

unwise : First, trying to increase the milk yield of a cow by better and larger feeding when that cow has not inherited the capacity to give more milk; and second, to underfeed a cow that has inherited the capacity to give a large amount of milk, so that she gives less milk than she would if properly fed.

The second cause of poor milk in India is due to the custom of the *gwalas* taking the cows round to their customers, and milking for each customer just the amount of milk the customer desires. The first milk drawn from the cows is not as rich in butter fat as the milk drawn towards the end of the milking. To get milk of an even quality the cow should be completely milked at one time, because the richest milk comes at the end of the milking. It is quite possible for a cow that properly milked gives milk of good quality, say 4 to 5 per cent butter fat, to have a customer get milk from that cow with not more than 3 per cent of butter fat in it, because the customer has received milk from the early part of the milking.

The third reason for poor milk is adulteration. If the water used for adulterating milk were always clean it would not be as objectionable as it is when contaminated water is used to adulterate the milk. Many deaths, infantile diarrhoea, dysentery, typhoid and choleric attacks are due to the adulteration of milk with contaminated water. Public opinion in India needs arousing to bring home to the *guala* the terrible consequences of adulterated milk and the public needs to be willing to pay a fair price for good sanitary milk.

The only way to secure an abundant supply of good pure milk at a reasonable price in India is to breed cows so as to increase their milking capacity and along with that to improve the quality of the milk. The skilful breeder will carefully weigh every milking, and thus know definitely how much milk a cow gives. Again he will test the milk for its butter fat. He will then eliminate from his herd cows that give either a small amount of milk or milk of low fat content. The cows remaining in his herd will then be those that give larger amounts of milk of good quality. By breeding from such cows, noticeable improvement will take place.

It is common saying among dairymen that the bull is 15 per cent of the herd. The reason for this is that a cow can have only one offspring a year, whereas a herd sire may have from 60 to 100 offspring

during one year. The bull transmits the milk-giving character from his mother to his daughter. Bulls with this capacity are to be found among the offspring of the best cow. It is fairly easy to tell a good cow from a bad cow, because the amount of milk and the quality of the milk can be measured, but it is impossible either by studying the pedigree or looking at the bull, to tell whether he will be good or bad. The only way to be sure of a good dairy bull, is to prove each bull : that is, to mate the young bull to a limited number of cows whose yields are known, and then wait until the daughters of this mating come into milk. If the daughters give less milk than their dams the chances are that the bull is a poor bull. But if the daughters give more milk than their dams, it is reasonable to suppose that the bull has the power to transmit milk-giving capacity. Little progress will be made in India until dairy herd sires have been proven. Once you have a proven sire then progress is possible and may be rapid.

The importance of the sire has seldom been fully understood, that is why so little progress has been made. Most of the bulls wandering at large are unfit for dairy herd sires. They cause great loss. It is following the policy of using proven bulls that has brought the great dairy breeds to their present high standard, so that today we have individual cows that have given over 20,000 lbs. of milk in less than 350 days with one thousand pounds of butter fat, while some have given well over 30,000 lbs. of milk. Several large herds average 10,000 lbs. per cow per year. The indigenous breeds of India in the hands of the skilful breeders, given from 25 to 50 years, might approach the dairy breeds of the West. The sooner a breeding programme is undertaken in India on a large scale, the sooner better cattle will be available. It is not guess-work. It is not haphazard. It is not wise to trust to luck. A definite programme in the hands of skilful trained breeders is sure of success.

While the building-up of Indian breeds to profitable dairy production is possible, it holds out little immediate hope of an abundant supply of cheap milk. The shortest way to this is to import proven sires of the best dairy breeds and mate them with Indian cows. Where this has been done Indian cows giving from one to three thousand pounds of milk in 350 days mated to the imported bulls have produced daughters actually giving from four to twelve thousand pounds of milk in the same

number of days. The offspring of the foreign bull and the Indian cow, while it may not in all respects be able to withstand conditions as well as the purely Indian cow is yet good enough to live and produce large amounts of milk and make a good profit for her owner.

Every cow must have a certain amount of food to maintain her body at a proper weight. If she does not get food enough for this she cannot give the amount of milk her inheritance calls for or bear a strong healthy calf. Any two cows of equal weight will need approximately the same amount of food to maintain their body in a healthy condition. But one of the two cows may have inherited the capacity to give only 2 seers of milk a day. The other may have inherited the capacity to give 25 seers a day. The skilled dairyman gives to every cow enough food to maintain her body at its proper weight, and then feeds the cow in proportion to the amount of milk she gives. The 25 seer cow should receive five or six seers a day more grain and concentrates than the cow giving two seers of milk a day. Profit is made from the grain that produces milk, not from the grain that maintains the cow's body.

If a dairyman needs to produce 200 seers of milk a day, it makes a great deal of difference to his profits whether his cows give large amounts, or small amounts of milk. If he has cows that average 20 seers of milk a day then he needs only ten cows to produce 200 seers per day. In the case of the two-seer cow, 100 cows would be needed and an enormous amount of food must be fed to these cows to maintain the body weight of the cows. This cannot return any profit. More buildings and equipment are needed, more men will have to be employed to take care of 100 cows than are needed to take care of 20 or 10 cows. From a consideration of this fact we can say that low yielding cows produce expensive milk, and high yielding cows produce cheap milk. As soon as this fact is understood by the people of India we can expect great improvements in dairy cattle. Every intelligent dairy cattle breeder today is striving to increase the yield and the quality of the milk of each individual cow. There is much more profit in one cow giving ten thousand pounds of milk a year than in two cows giving five thousand pounds each of milk a year. Five cows each giving 2000 lbs. of milk a year may enable the dairyman to make bare expenses, no profit and no loss, but ten cows giving 1,000 lbs. of milk a year would almost certainly involve the city dairyman in a very serious loss.

To sum up, the way to have better cattle in India is to have intelligent breeding programmes properly carried out, with proper feeding and care of the cattle. To improve the milk capacity and the milk quality likewise demands an intelligent breeding programme. And then again to see, when cows have been bred with a capacity to give much milk, that they are properly fed and cared for. These are simple but sure roads to success, and there are no other ways by which India may secure better cattle and more and better milk.

THE PROBLEM OF FEDERATION IN INDIA

By MR. GAURI SHANKAR CHATTERJI, M.A.

To the Congressman in India the idea of an All-India Federation as envisaged in the Government of India Act 1935 is intolerable. Most of the other Indian parties have profound misgivings about the nature of the Federation which seems to be in the offing. Yet it is a fact that responsible British statesmen and politicians belonging to all the three parties have stressed the importance of an All-India Federation ever since the days of the First Round Table Conference. How can this difference of attitude between the Indian and the Britisher explained? Why should the former, generally speaking, fight shy of the very idea of Federation while the latter lauds it to the skies? The problem, though simple enough to the student of politics, is somewhat mystifying to the layman.

Now it must at once be made clear that it is not the idea of any form whatsoever of federation that is repugnant to the Indian parties. Indeed it has been admitted by all sections of Indian public opinion that for the vast sub-continent of India with its *fundamental unity in diversity*, the most appropriate form of government is the federal one. A division of governmental powers between the central government and a number of autonomous provincial governments—each independent in its own sphere and neither being able to encroach upon the sphere of the other—offers the easiest and most effective practical solution of the manifold social, economic and political problems of

Indian Government. Moreover we must remember that there are two conditions which are essential for a Federation. In the first place, there must be a body of political units, "so closely connected by locality, by history, by race or the like as to be capable of bearing in the eyes of their inhabitants the impress of a common nationality." Secondly, there must exist "a very peculiar state of sentiment among the inhabitants of the countries which it is proposed to unite; they must desire union but not unity." Both these conditions are undoubtedly present in our country which therefore can be federally organised without difficulty.

It is the particular scheme of Federation as embodied in the Government of India Act which is strenuously opposed by the Congress and other parties in India. The reasons for this opposition are not far to seek. Students of Comparative Government are aware that a federal form of government reveals certain qualities different from those of extreme unitary forms. Certain imperfections in these very qualities coupled with the lack of element of popular control in it have made the federal scheme of the Government of India Act an anathema to most of our leading politicians.

The characteristics of a federal form of government as distinguished from a unitary one are :—(a) the distribution of legislative powers between the central government and the governments of the states; (b) distribution of administrative powers between them; (c) representation of the states in the Federal Parliament; (d) special judicial arrangements; (e) special revenue arrangements; (f) stipulations relating to the form of state government; (g) specially difficult amending process.

The Government of India Act 1935 contemplates a Federation in which all the qualities mentioned above are necessarily present. For instance, the Act provides for distribution of legislative powers between the Central Government on the one hand and the governments of the Provinces and the Federated States on the other [Sections 99—104]; it defines the new administrative relations between the Federation and the Provinces or States [Sections 122—128]; lays down rules and regulations for the representation of the States and Provinces in the Federal Parliament; it makes special Judicial arrangements by providing for a Federal Court for the settlement of constitutional disputes between the Centre and the Provinces or States; it establishes a new system of public

finance by the allocation of the sources of revenue between the Federation and the Units; it stipulates about the form of the governments of the Units by laying down rules regarding the council of ministers and providing for the administration of provincial affairs generally on a uniform basis; finally it lays down a specially difficult amending process by placing the Constitution Act outside the competence altogether of both Provincial and Federal Legislatures.

So far, the contemplated Indian Federation conforms to type. But the moment we begin to analyse critically the provisions under the heads enumerated above we discover that the kind of federation proposed to be established is by no means calculated to improve matters from the Indian point of view. On the other hand, it appears that the British architects of our fortune specially designed a new type of federation to give us merely the semblance of political authority while retaining the substance in the hands of Crown and Parliament. An analysis of the distribution of legislative powers between the Centre and the Units and that of the representation of the Provinces and the Federated States in the Federal Parliament will show how faulty the federal scheme as embodied in the Government of India Act is.

Departing from the usual practice of other Federal Constitutions the Government of India Act does not draw up a single list of powers to be exercised either by the Federal Government or the Government of the Units. Instead of this, the Act demarcates separately the respective spheres of the Federal and Provincial legislative competence. There is, besides, a sphere of concurrent legislative powers exercisable both by the Federal and Provincial or State Governments. The three lists, *viz.*, the Provincial, the Federal and the Concurrent are made as exhaustive as possible so as to leave practically little or nothing to the residuary field; for the residuary field of legislation a common feature in Federal Governments was regarded with the utmost suspicion by the Hindu as well as the Muslim communities; the former demanding that it should remain with the Centre, the latter that it should remain with the Provinces. As Sir Samuel Hoare admitted (*Debates*, House of Commons, March 27, 1935), this attempt to exhaust the activities of Government in three fields means complications and the possibility of increased legislation. There is a wide body of impartial opinion which considers that from the point of view of Indian requirements it would

have been far more satisfactory to have only *one* list of legislative subjects allocated to the Provinces; the residual subjects being assigned to the Centre. Indian conditions demand that there should be a strong Central Government armed with residuary powers to be able to carry out the reforms in the social and economic spheres which the country so direly and urgently needs.

Then again there is another abnormality about the distribution of legislative powers among the Federated Units. The power of the Federal Legislature under the Act to make laws for a Federated State may be different from its power to do the same for a Province. Indeed its power to make laws for a Federated State may be subjected to serious limitations which would not apply to the Provinces; for the Ruler of a State has the power to specify in the Instrument of Accession by which he accedes to the Federation the subjects with respect to which the Federal Legislature may make laws for his state or the qualifications which he may attach to the acceptance of a particular subject as a Federal Subject. Thus in the proposed Federation there will be variation (*a*) between Provinces and States and (*b*) from State to State in the number of federal subjects. A Federation in which the competence of the federal authority varies from unit to unit, is certainly, to say to the least, abnormal. It wants only to withdraw from the field of legislative competence of the Federal Legislature a sphere which ought to belong to it legitimately.

We next come to the subject of representation in the Federal Parliament. This is of special importance and difficulty in a Federation. The problem is this—Is it sufficient to secure representation in the ordinary legislative assembly elected by the people at large? Such a representation is usually considered inadequate, for the smaller states are afraid lest they may be overborne and outweighed in the single legislative assembly by the more numerous representation of the larger states and thus possibly suffer the extinction of their individual political life at some future date. It is, therefore, usually considered necessary that the states *as* states should be represented equally somewhere at the Centre. The institution which is best suited for the equal representation of the States is the Second or Upper Chamber, which is regarded usually, though not necessarily, a special feature of a federation.

The Government of India Act provides for two chambers at the Centre—a Lower Chamber, *viz.*, the Federal Assembly and an Upper Chamber, *viz.*, the Council of State. It, however, does not respect the principle of 'equal representation of the states' in the composition of the Council of State. The distribution of seats in this body is unequal and is based on various considerations including the population of the Provinces, and the relative importance and rank of the Federated States as indicated by the dynastic salute and other factors. An attempt is made to assign an equal number of seats to the States of equal rank irrespective of their population, *e.g.*, Mysore, Kashmir, Gwalior and Baroda, although widely differing in population, are yet assigned an equal number of seats in the Council of State. The fact, which is specially noteworthy about its composition, is that while the British Indian representation is to consist of a total of 150 members, the numbers of seats available for the States is 104. This though far in excess of the share to which they are entitled by virtue of their population, was found necessary in order to allay the fears of the Princes lest they should find themselves permanently at a disadvantage as compared with the British Indian representatives. These latter numbering 150 would be elected on a very restricted franchise and as a rule their attitude towards progressive legislation is likely to be very uncertain. The representatives of the States, on the other hand, being nominees of the Princes and not popular representatives coming through the open door of election are likely to out-Herod Herod in their outlook on the legislative needs of the nations. Indeed they would be 'more royalist than the King himself and more ecclesiastical than the bishops.' They would form a powerful nominated block which would simply have the effect of surcharging the already conservative Council of State with further reactionary influences. When we remember further that the Government of India Act intends the Council of State to be a really effective chamber exercising co-ordinate legislative powers and nearly co-equal financial powers the conclusion is inevitable that the Chamber was specially designed to keep under permanent check the element of popular control which might possibly assert itself in the Lower House.

But there is very little hope that even in the Lower House the element of popular control would ever be able to assert itself. The

composition of this body also is such as to preclude the possibility of the representatives of the people making progressive laws and protecting the rights and liberties of the people. The Federal Assembly is to be composed of 375 seats out of which 125 (*i.e.*, full one-third) go to the Indian States and 250 to British India. In this Assembly also weightage has been given to the Indian States whose representatives being nominees of the Princes will form, as it were, a revised edition of the present nominated block of officials and non-officials in the Central Legislature. For the representatives of the Princes, bound by ties of subordinate allegiance to the Paramount Power, will be only too ready to allow the unexpressed wish of that Power to define its attitude in matters of legislation. Nor are the representatives of British India likely to make a much better show as champions of the people. They would be elected by the members of the Provincial Councils, *rotina in communal groups* according to the principle of Single Transferable Vote. Taking the case of our own Province, of the 37 seats allotted to the Federal Assembly 19 are general seats and 12 Mahomedan seats among others. The total number of general seats in the Provincial Assembly is 140 and the Mahomedan seats are 64. The 19 and 12 of the Federal Assembly assigned to our Province will, under the present scheme, be elected by the 140 and 64 of the Provincial Assembly. We may, therefore, agree with Lord Reading who pertinently observed, during the discussions on the scheme that "the system inevitably opens the door to corruption; for it means that *each* member of the Central Legislature, which will deal with matters vitally affecting business and finance, will be elected by a number of provincial electors *on the average not more than 7 or 8 in number* (quotation ours). "Of all methods of maximising corruption," says Prof. Laski, "indirect election is the worst."

Again, the system of election provided for the Federal Assembly would produce certain other deplorable results. As the Archbishop of Canterbury feared (*Debates*, House of Lords, July 2, 1935), "there will be a tendency inevitably to send men to the Federal Legislatures pledged to particularist provincial policies." So the system "would aggravate the tendency to provincial separatism which already exists and endangers the unity of India."* It would further create communalism

* See Bannerji and Lahiri, *New Constitution of India*, pages 221 and 223.

of the worst form in the Federal Legislature; for the system of election is such that the various communities in that body will be elected, in the proportion fixed by the notorious Communal Award, by their fellows in the Provincial Legislature, and unless a strong All-India party like the Congress succeeds in capturing the seats allotted to the various communities there will inevitably be a segmentation of the Assembly into various communally minded groups which will certainly be not conducive to the formation of a satisfactory Federal Executive. It is not likely, however, that the Congress will capture the communal seats as well besides the general seats, thanks to the system of election; for a majority of the communal seats, those belonging to the Mahomedans, are not under the control of the Congress. So we may infer that the 82 Mahomedan seats of the Federal Legislature will be filled by persons who will not be under the control of the Congress, but from a separate group which may or may not coalesce with the group of persons filling the general seats numbering 105. Then when we remember that a group of 125 members will consist of the representatives of the States the conclusion becomes irresistible that the lack of popular control in the Assembly may be almost complete. For, of the remaining 63 seats assigned to various other sections such as Sikhs, Anglo-Indians, Europeans, Indian Christians, women, landholders, labour, commerce and industry, no popular party can expect to capture more than half. Thus there is every likelihood of a combination of reactionary elements leading to the formation of a cabinet not likely to sympathise with popular aspirations and, when once formed, very difficult to turn out.

The above analysis will show why the idea of Federation is so stoutly opposed by the popular parties. When we remember further that by the Government of India Act only a small fraction of political power is going to be transferred to the so-called peoples' representatives, and even in that little power the share of the States is going to be disproportionately large, we may legitimately conclude that the federal scheme as embodied in the Government of India Act is not only unsatisfactory but positively mischievous.

PRINCIPLES OF STATE-RESPONSIBILITY IN INTERNATIONAL LAW

By MR. K. R. R. SASTRY, M.A., M.L.

In its essence the Law of the responsibility of States for violations of International Law might be described as "the law of agency in international relations." Prof. Oppenheim distinguished between "original" and "vicarious" responsibility of States. The responsibility borne by a state for its government's actions and such other deeds done with its authorisation is named "original". But, States are also responsible for certain acts other than their own as, *e.g.*, unauthorised injurious acts of their agents or their subjects. This is termed "vicarious" responsibility. This distinction is neither logical nor clear-cut since the law of this branch arises out of *agency* fundamentally. Far more valuable is the distinction made by Oppenheim between international delinquencies and crimes "against the law of nations" as piracy and slave-trade.

A State is responsible for the consequences of its own delinquency. Prof. Oppenheim has defined an international delinquency as "every injury to another State committed by the head and Government of a State through violation of an international legal duty."

Before discussing the analogies from private law sources, it is necessary to remember that an international law liability comes into play only "where the enforcement of the principles of private international law" is impracticable.¹ Are analogies of private law strictly applicable to states with regard to their responsibility for actions injurious to other states or their nationals? Is it, as Dr. Lauterpacht put it, "an essential condition for the existence of such responsibility that malicious intent or culpable negligence should be proved?"²

Grotius stated that "a civil community like any other community is not bound by the act of an individual member thereof, without some act of its own or some omission."³ Grotius is thus found to follow the Roman law doctrine of liability as dependent on *culpa*. Vattel laid

¹ Hatschek, *Translation by Manning*, p. 279.

² Lauterpacht, *Private Law Sources and Analogies of International Law*, p. 185.

³ Grotius, L II, C. 21, § 2.

down that " whoever evilly entreats a citizen indirectly wrongs the state, whose duty it is to protect the citizen. The latter's Sovereign ought to avenge the wrong, punish the aggressor, and if possible hold him to compensation in full."⁴ Mr. Anzillotti demurs from the theory of *culpa* since he bases state-responsibility on the commission of an act contrary to international law. As he puts it, " the state is responsible not for the direct or indirect connection between its will and the action of the individual not for a possible culpable or malicious intention but for not having fulfilled an obligation imposed upon it by international law, for having violated a duty to other states."

The principle of absolute responsibility has now been abandoned and the true basis is liability for fault, the term *culpa* being taken in the international law sense. As Hatschek puts it, " Such international law culpability exists if the state was negligent in choosing the officials or organs which caused loss to the other state or its citizens or if it has not taken every precautionary measure to prevent injury being done by one of its private citizens to the foreign State."

Schoen concludes that " the State is responsible, if it omits negligently or maliciously to prevent or punish the injurious act of private persons." Strupp makes a distinction between internationally injurious acts by State organs and private agencies.

The German Professor Hatschek traces the legal foundation for state-responsibility in the primitive idea of group-solidarity. The practice which continued in the middle ages of taking subjects into custody or seizing them as security on account of the debts of their superiors is cited to support the view.

Whatever the foundation, the acts done by the State can be considered under three heads following the lead of Prof. Hall. The acts done by the administrative, naval and military agents are *prima facie* acts sanctioned by the State. Acts done by Judicial functionaries in the State are " less closely connected with the State." The link of the State with the individuals is indeed loose.

Initially, it has to be remembered that a federal state cannot escape responsibility for the international wrongs committed by a Constituent State. When in 1906, the Board of Education of San Francisco

⁴ Vattel, BK II, Ch. VI, § 71.

segregated Japanese children, the Government of the U.S.A. had to endeavour to induce California to comply with the Japanese demands.

So far as Sovereigns or diplomats are concerned, States have to accept responsibility even for unofficial acts done by them. The parliamentary bodies have to resort to fair comment in discussing foreign policy.

Decisions of arbitral tribunals more particularly from 1887 have afforded interesting cases of state-responsibility for acts of its officials. In the *Vexiau Court Case* the facts were as follows: On September 26th, 1887, a German soldier shot from the German side and killed an individual on the French territory. Germany apologised for it and paid 50000 francs to the widow of the deceased as damages. The sentry escaped punishment as he had acted in obedience to orders which he had misunderstood.

The *Dogger Bank Incident* (1904) is another illustrative case of state-responsibility. Two British fishermen were killed through gunfire from Russian vessels. The United Kingdom demanded apology, damages, and compensation. The incident was investigated by an International Commission of Enquiry. Firing was held unjustifiable and Russia paid 65000 lira as damages.

Hasmann, a member of the Crew of the German gun-boat *Panther*, failed to return on board the ship on November 26th, 1905, at the port of Itajahy in Brazil. The Commander of the *Panther* sent a search party who penetrated into several houses and compelled residents to assist them in the search. Hasmann returned himself the following morning. Brazil lodged a complaint with Germany which disowned the act of the Commander, apologized for it, and punished the Commander.

State-responsibility at the time of war is now generally recognised and Art. 3 of the Hague Convention 1907 stipulates that "a belligerent party which violates the provisions of the said Regulations shall, if the case demands, be liable to pay compensation. It shall be responsible for all acts committed by persons forming part of its armed forces."

So far as judicial functionaries are concerned, the principle has been stated with a rigour in some cases that Jurists have had to criticise it. Before the American and British Claims Arbitration, the British Government urged that a claim was justified only if "the tribunal was

satisfied that there had been so clear a *Denial of Justice* as to make it impossible to hold that any unbiassed tribunal could have arrived at the conclusions reached."⁵ What is meant by *Denial of Justice*? Surely, an unfavourable outcome of a trial is never in itself a Denial of Justice (Anzillotti). But, "a refusal to grant foreigners access to Judicial channels" must be regarded as Denial of Justice. To apply the phrase to acts of executive, legislative and judicial authorities is productive of confusion. Eagleton applies it to the "failure to make reparation through local agencies of redress for an injury suffered by an alien." The essential test is put by Eagleton in this query "has there been an antecedent injury to an alien" for which he is now seeking redress?" Thus according to Eagleton, Denial of Justice can appear only when the alien is the plaintiff. This is neither proper nor desirable, for injustice of a flagrant character might occur even to an alien defendant. Terminological gymnastics oftentimes leads to an incomplete perception of the realities.

Ralston laid down in his *Law and Practice of International Tribunals*⁷ that it is only in cases "where justice is refused or palpable and evident injustice is committed—that the Government of the State can interfere." The *Medina Case* was cited by Ralston for the test of "dishonesty or prevarication of a judge legally proved . . . the case of torture, the denial of the means of defence at the trial or gross injustice."

The view taken in the decision of the *Supreme Court of Peru*⁸ deserves quotation: "In the relations of nation to nation the rule is respect for the sovereignty of friendly powers, typified in the authority of its Judges and of its decisions. The exception is the claim based on the motive of denial of justice."

In the League Conference on codification which met at the Hague in 1930, one of the seven topics that came up for discussion was the responsibility of states for damages done in their territories to person and property of foreigners. Differences rose up on fundamental questions,

⁵ *American and British Claims Arbitration*, 588—598.

⁶ A.J.I.L., XXII, p. 559.

⁷ pp. 82 and 86.

⁸ *Annual Digest of Public International Law Cases*, 1927—28, Case No. 149, p. 221.

including the meaning of the terms "international obligations," "responsibility," "the exhaustion of local remedies," the enactment of legislation contrary to International Law as well as on the failure to enact legislation for its enforcement. On the subject the Conference was, there, obliged to be content with a report.

The *Costa Rica Packet Case* (1891) illustrates the repercussions of injuries done by Judicial functionaries. The master of an Australian whaling ship was arrested by order of a Court of Justice in the Dutch East Indies for theft alleged to be committed on the sea within Dutch territorial waters. On a finding that the crime was committed on the high seas outside territorial waters, he was however released. Great Britain claimed damages but Holland contended that the arrest was in strict pursuance of the Dutch Laws. Later, the conflict was referred to the arbitration of Prof. De Martens of St. Petersburg. The award was in favour of Great Britain and Holland was directed to pay damages.

The Law on State-responsibility for political crimes was thus laid down authoritatively by a Committee of ten Jurists appointed by the League Council after the murder of the Italian General Telini, on Greek territory in 1923 :—

“ The responsibility of a State is only involved by the commission in its territory of a political crime against the persons of foreigners if the State has neglected to take all reasonable measures for the prevention of the crime and the pursuit, arrest, and bringing to justice of criminal.

The recognized public character of the foreigner and the circumstances in which he is present in its territory entail upon the State a corresponding duty of special vigilance upon his behalf.”

Further, in times of “insurrection or civil commotion” a state is not responsible for injury which may be received by foreign subjects in their person or property in the course of the struggle. But, Prof. Garner would make the state liable for reparation when mob violence is directed against aliens as such. In any view, the Government concerned should not be guilty of breach of good faith or of negligence in suppressing insurrection.

Any Government which enters into a contract with another state and violates it, commits an international delinquency. Lord Palmerston's circular of 1848 has been reaffirmed by Lord Salisbury in 1880 and Mr. A. J. Balfour in 1902. The creditor is entitled to *restitutio in integrum*." As Sir W. Grant put it in *Pilkington Vs. Commissioners*, etc. (2. Knapp's P. C. Reports, 17. 21) "if a debtor received the assignats at the value of 50d. he does not make compensation by returning an assignat which is only worth 20d. "In the *Serbian Loan's case* the P.C.I.J. held that "the Jugo-Slav Government must pay the principal and interest of the bonds in gold or in foreign currencies and not in paper francs."

South American States have made attempts in their contracts with foreigners to shut out the diplomatic intervention of the home States of these foreigners in case of disputes arising out of such transactions. Thus international intervention has been sought to be excluded by embodying this *Calvo clause*. In one case, the American Mixed General Claims Commission held such a clause valid. But, the agreements made between Italy, France and Venezuela to submit to mixed commissions all claims of nations of these two Powers against Venezuela can be deemed to be cancellations of the *Calvo clause*.

Regarding the advisability of using force for the recovery of public debts, the Second Hague Conference has adopted the Drago Doctrine in the Convention for the limitation of the employment of force for the recovery of contract debts.

The undertaking is not made applicable when the debtor state refuses to "reply to an offer of arbitration or after accepting the offer renders a *compromis* impossible or after the arbitration fails to submit to the award."

State responsibility for acts of individuals is very remote. Prof. Borchard who has made this part of the subject his own, postulates the position thus :—

"A long line of Cases has established certain qualifications upon the non-liability of the Government for the wrongful acts of private individuals. These consist in certain manifestations of the actual or implied complicity of the

Government in the act, before or after it, either by directly ratifying or approving it or by an implied, tacit or constructive approval, in the negligent failure to prevent the injury or to investigate the case or to punish the individual or to enable the victim to pursue his civil remedies against the offender. . . . The failure of a Government to use due diligence to prevent a private injury is a well-recognised ground of international responsibility. A more frequent basis of Government liability is the failure, after reasonable opportunity, to bring the offenders to Justice. Incidental to this ground of liability is the inadequate punishment of guilty individuals, negligently permitting them to escape or an inexcusable delay in investigating the facts."¹⁰

Consequent on Spanish action in executing American filibusters in Cuba, rioting took place in New Orleans and Key West in 1851. Daniel Webster laid down the doctrine that U. S. A. owed to "foreigners such protection as was afforded to our own citizens." Grants were only made *ex gratia* to Spaniards who suffered in the riots.

In the *Youman's Case* (November 23, 1926) the Mexican-American General Claims Commission held Mexico liable for "lack of due diligence" in punishing a mob which murdered two American citizens. In the *Laura B. Jones' Case*, damages of 12,000 dollars were awarded for Mexico's failure to punish the slayer of the American Superintendent of a mining factory at Mexico.

The report of Max Huber regarding the insurrection in Spanish Morocco (1913) and consequent damage to British subjects, laid down that "a state is not responsible for the fact of rebellion as a general rule, for damages done by insurgents, responsibility arises only in cases of lack of vigilance." The same rule was laid down in the finding of the American and British Arbitration Claims' Tribunal in 1926 on the Sierra Leone Insurrection of 1898 consequent on the levy of hut tax.

The conclusions that emerge may here be stated :--

- I. States are liable for not having fulfilled the obligations imposed on them by international law.

¹⁰ Borchard, *Diplomatic Protection of Citizens Abroad*, p. 217.

- II. When such acts are found authorised by the State, the liability is complete, when not authorised, responsibility cannot be established provided the State be not guilty of negligence and lack of due diligence. Thus, in cases of sovereigns or diplomats, States are obliged to accept responsibility even for unofficial acts. Acts done by the administrative, naval and military agents of the State are presumably acts done by the State. Judicial functionaries are less closely connected with the State and "a Denial of Justice" would alone connect the State with liability. The link of the State with private persons is still more loose.
- III. The theory of absolute responsibility of the State has to be rejected. The State must be vigilant; it cannot be asked to guarantee security.

PANDIT JAWAHAR LAL'S VIEW OF LIFE

By MR. N. C. MUKERJI, M.A.

Pandit Jawahar Lal and his party have had a repressed life so far. Now that Congress is in office we have those considerations and springs released which were ill expressed or unexpressed, and lying buried many fathoms in the deeps of human nature. The whole man is getting a chance to assert itself. As a consequence we have some new emphases today, of a very revealing character.

Educationists everywhere will welcome the emphasis on discipline. We are told "Congress discipline" is not "the old authoritarian discipline." The old discipline thought more of the teacher's right than the student's. But the anxiety over our having it in our institutions was not so much the result of thinking of ourselves, as of the fact that discipline is not a thing that can be dropped and the threads picked up again at leisure. It is a tender plant requiring constant nurture. Pandit Jawahar Lal's insistence on it is not a minute too early, if our future is to be secured. No society, he tells us, can go on without it. Youth

should not be a mere "one way mind," fit only for the work of destruction and not construction. In keeping with the necessity of discipline for our students, is his advice to *muzdoors* to think more of the quality of work and the rights of masters, and less of strikes. It is unfortunate that the Pandit thinks so poorly of Indian education. One can understand it so far as its attainments were concerned, and so far as these suffered, say some thirty years back, as contrasted with the standards of European education. But we feel much water has flowed under the bridge since then. The immense strides we have taken, since then, to get abreast of the West, one fears, have been overlooked by him. Our work is suspect in Congress circles, more because we have emphasised the "restraint" rather than the "adventure" side of liberty. Here, again, in these years there has been not inconsiderable widening of the bounds of freedom as to the participation of students in politics. But if our new adventures are not to topple down under their very weight, they will need not less but more restraint.

When one examines the Pandit's already considerable writings, the picture of the bitter and unrelenting fighter that one conjures up gets considerably toned down and softened. His communism, for example, cannot pass the tests of orthodoxy. It is much modified by liberalism. His conception of the state does not ignore the individual, in the interests of the whole, albeit he believes in a planned economy. He is not against even the possibility of securing a juster distribution of wealth by peaceful means.

What he is after is : a total change of spirit in society and government. He is prepared to admit the blessings of Capitalism and the British Government, up to a certain point. But their utility is over. Back of this thinking is the conception of history as proceeding through breaks alone and not continuity. The Capitalist cannot change his nature, nor the British their policy of a governed and not free India. He is prepared to admit some power and good from our new Councils. But these cannot be even "the seeds of freedom." The Pandit, we will find, does not want the finished product overnight. He would be content to tread the path of gradualism, if it is sure of leading him to his goal. He repeats again and again that the present Councils cannot give a chance to get started the Congress economic reforms. Much of the future will depend, therefore, on the demonstration which our

new governments furnish on the practicability or otherwise of this point.

We cannot help enquiring how one, who is not without moderation or accommodation in his thought and practice, yet is so fixed in his idea that the British Government cannot develop into a free India, that this has to come by way of a break or a revolution. The Pandit, it should be remembered, is more friendly to Englishmen than the majority of us, and he is more English in his sympathies than most of us. The reason for it is to be found in his attention getting fixated on the black than the white patches of British rule. Amritsar, and the inhumanity of our present jail administration, are chiefly responsible for this, and have entered into his soul like iron. After this he can make a distinction between individuals and the Government, but cannot think that what makes the individual so likable can change the spirit of the Government, and also make it likable.

The Pandit does not say that all interests are at bottom economic, while he emphasises these as the urgent interests to-day. He allows the distinctiveness of moral interests. These, however, are one of many. There is no clear statement as to their being the controlling interests of man. Man is an amalgam of many interests, morality being one of these. His view of the place of morality and religion thus is fundamentally different from that of the Mahatma. The Pandit's autobiography, like the Mahatma's, has found a place among our national classics. But one vainly searches in the first for the deep psychological insight and the relentless inquisition of the soul, which puts the second in the class of *The Pilgrim's Progress*, and *Augustine's Confessions*. While morality is denied the pride of place in human life, religion simply is *non est*, so far as his thinking is concerned.

We are thinking of the place morality and religion occupy in his *theory* of life. In *practice* the Pandit is the Knight *sans peur et sans reproche*, and his whole work is done in the religious spirit. Yet, if metaphysics is not moonshine, theory cannot be ignored, and we are not sure if the Mahatma's comparatively greater willingness to believe in the change of character of his opponents, is not due to the place that he gives in his view of life, as contrasted with that of the Pandit, to these very moral and religious considerations. There is a reason, we

think, for this difference of the Pandit's; the assigning of a comparatively insignificant place to morality and religion. It is that the Pandit is what would be called to-day a Humanist in his philosophy. The values, which he so much admires and serves, are after all human creations and not absolute. The Universe is not back of them. Indeed it is hostile to them. Thus rebellion against the whole is what alone can keep alive right living and right ideals. An element of fight thus, consciously or unconsciously, gets into everything, and with it a certain Promethean grandeur. But man cannot take, as he is constituted, fight as the last word of things. We wage war for peace. So runs the teaching of the Stagyrte. The Pandit is no exception to this law of being. He quotes Nietzsche how first there has to be chaos that a star might be born, and asks agonisingly the "why" of this waste. Further, he tells us, that he is not happy, with Indian or English company. It is because the sense of imperfection haunts him and he is seeking for the Perfect. Pandit Jawahar Lal here reminds us of another princely character, drawn by immortal hands, who facing a conflict of laws in his own being asks the same question: why this price? It is not asked out of cowardice, but a high sensitiveness to the tragedy of a broken life. Therefore, when we begin with a bias towards peace and want to narrow down conflicts, we are but obeying the Life Impulse and not betraying it. War should not be a biological necessity. An establishing of common grounds, even asymptotic approaches, may not be without their life value.

Pandit Jawahar Lal's adventurous living cannot but raise many questionings in one's mind. A few of these are put down here. The first is: Are Evolution and Revolution after all so antithetical as they are made out? These days we have heard politicians in our country talk of "Evolution at revolutionary speed." Lloyd George's statement, in the opening days of the Russian Revolution, that countries could run through in a shorter time what had taken centuries earlier, is in point here. Biologically gradualness does not exhaust the law of progress. It also includes breaks or jumps. Evolution is emergent, and includes, on a metaphysical interpretation, both breaks and unity in the whole. In practice, it is true, we might interpret this unity differently, but an agreement in theory would show that we are not without a common basis to work on.

Secondly, though the breaks within the whole, or jumps, have to be emphasised to-day, the other, the doctrine of gradualness, cannot be evaded altogether. For example, we might want to speed up the machinery which would end hunger. But speed it up as we may, we still will have to abolish hunger on a full stomach. We might order fast days for ourselves, to show our identification with the hungry, but they will have to be the exception and not the rule. The asperity of our judgments of institutions we are criticising will, therefore, have to be softened considerably. It would have to be a relative not an absolute one; one in the region of "more or less" and not the "altogether." Finally, on those of us who approach life with a bias towards peace, there hangs a heavy responsibility. It is to speed up the moral processes within ourselves and in our institutions, which are their outward expression. We should be as little "all brakes and no power" as "no brakes and all power." We need both Authority and Freedom. Either alone would not suffice.

Note.—I have not littered over the paper with references to my sources. The intelligent reader will find them all in Nehru's *India and the World* and the *Autobiography*. The part on discipline is from an unreported speech delivered in the local Kavastha Pathshala University College.

N. C. MUKERJI.

UNIVERSITY EDUCATION IN INDIA

By PROF. GURMUKH NIHAL SINGH.

I

University education in India has reached another serious crisis in its life, somewhat reminiscent of the crisis of 1904. This has been brought about by two important factors:—(1) by the stupendous increase in the number of the educated unemployed, and (2) by the change in public opinion, which has gradually come to believe in mass education in preference to the education of the few at the universities. The economic depression on the one hand, the increase in the university budgets on the other and the tremendous leeway that has still to be

made in wiping out illiteracy have made the public opinion swing round in favour of spending public money on primary or mass education and to cut down, if possible, expenditure on the universities. Very recently a new factor has arisen with a similar portent. Mahatma Gandhi is advocating, with his usual persistency and vigour, his ideas of making education self-supporting. He wishes to make general higher education entirely self-supporting and to finance professional and technical education through public-spirited businessmen and industrialists who gain directly from it. For example, he would expect the Tatas to run Engineering, Mining and Metallurgical Institutes for the training of experts for their works and factories. In any case, public opinion in India is at present averse to the kind of education that is being imparted in the Indian universities to-day. It involves a very heavy expenditure of public money, which could be more profitably spent on mass education and it produces thousands of graduates every year who are unfit for doing any useful work and who impoverish their parents only to swell the already swollen ranks of the educated unemployed.

There is certainly a great deal to be said in favour of the change in Indian public opinion. The passage of time has shown conclusively that the "Percolation Theory" has very serious limitations and that it can never solve the problem of the enlightenment of the masses. Mass education is essential and fundamental and no sacrifice is too great to achieve it. Recent experiments in Turkey and Russia have conclusively proved that it is not necessary to wait for a couple of generations or more to wipe out illiteracy. If there is a will, colossal as the figure of illiterates in India is, it should not take more than a dozen years or so to make it reach the vanishing point.

Similarly, the need for vocational training is imperative. I do not yield to anyone in pressing for the extension of technical education in India. Vocational institutions are sadly lacking in this country and every effort should be made to start technical institutes of every grade in the different provinces. The universities have their own part to play in the industrial advancement of India. They must help in giving advanced professional and technical education of the university

type and especially by carrying on research in applied sciences and specific industrial problems.

But there is a very important point on which the public demand is not sound, *i.e.*, that the Indian universities should transform themselves into factories for the turning out of technicians. It is a pity that even highly enlightened leaders have adopted this attitude towards the universities and want them to become glorified technological institutes.

I am firmly convinced that it is not the business of a university to impart vocational instruction. Universities, as I have already stated, can and ought to help in the advancement of industry through promoting the study of applied science and research in industrial problems, but to train technical experts and technicians is not the work of a university but of special technological institutes and workshops. There is a very great need of starting technical institutions of all types and stages in India, and the Governments as well as industrialists and businessmen and other educational organisations should cooperate in bringing them into existence. But it is not right to ask the universities to become technological institutes. As the Haldane Commission on University Education in London in 1913 put it, the object of a university is essentially different from that of a technical institute—"The aim at a university is the pursuit of knowledge not only for the sake of information but always with reference to the attainment of truth." On the other hand, "in a technical or professional school the theoretical teaching is limited and directed by the application of ascertained facts to practical purpose."

Bearing in mind this essential difference the true functions of a university may be stated as :—

- (1) the conservation, dissemination and extension of knowledge;
- (2) the inculcation of a spirit of love for learning and a burning zeal for its dissemination;
- (3) the production of learned, cultured persons and leaders of thought and action; and
- (4) the turning out of a large number of young persons with trained, well-balanced, disciplined minds, with broad outlook and sound character, *i.e.*, of persons without tech-

nical knowledge required for specialised work but with a capacity to adapt themselves to the requirements of any situation.

How far are Indian universities performing these functions to-day? As a teacher in an Indian university it is very painful for me to have to state that the universities in India are not able to perform these functions either adequately or satisfactorily. What are the chief difficulties in their way?

III

Perhaps the first is the paucity of financial resources at their disposal. None of the universities in India possesses adequate staff for the working of a true tutorial system or the right type of Honours' courses, such as exist at the western universities like those of Oxford and Cambridge in England or Harvard in America. And which Indian university gets sufficient grant for the encouragement of higher research in the various branches of university studies? Even for ordinary teaching work there are some universities in this country which do not possess adequate staff and equipment. How can they then perform satisfactorily the true functions of a university or compare with first-class universities of the West?

IV

The second great difficulty in the way of the Indian universities is the admission of a very large number of young persons who are not fit to receive university education. There are several factors that have to be taken into consideration in this connection :—

The first is the question of the general equipment of the entrants to the universities. In the U.P., an attempt has been made to raise the standard by opening separate intermediate colleges and by removing intermediate classes from the universities. That, however, does not affect the real problem. What is wanted is a thorough overhauling of the whole system of primary and secondary education in the country and not the creation of intermediate educational institutions as has been done in the U. P. and, to some extent, in the Punjab.

Secondly, a large number of those who enter the universities are unfit for doing higher academic work. They do not possess either the

requisite capacity or the natural bent for a scholastic career and unless they are debarred from admission to the universities the standard of higher education cannot appreciably rise in India. I am of opinion that the third division students should not ordinarily be admitted to the universities. To this rule, however, I would make two exceptions:— (1) those students who think that their third division was due to accidental causes may submit themselves to a further written and oral test by a Board of Examiners and if they satisfy the Board they may be admitted as regular students of the university; and (2) well-to-do young persons with third division may be admitted to lectures in pass courses but not to university examinations, on payment of special fees, to enable them to enjoy the advantages of the university atmosphere and to imbibe general culture.

The third factor in this problem of limiting admissions to those who are qualified for the purpose is beyond the control of the universities, *i.e.*, the making of provision for the vocational training for those who have a natural bent for specialised practical training.

Fourthly, there is the purely physical limit—the limit of numbers dictated by the extent of resources of a particular university. I feel that a university is not justified in admitting persons for whose proper training it cannot make full provision. I, therefore, believe with Sir P. C. Ray in cutting down admissions to a university very greatly with a view to raising the standards—both by admitting only qualified candidates and by limiting the number according to the resources of the university.

If this is done, I believe, several defects that exist at present would disappear. To begin with, the intellectual tone in the universities would at once rise appreciably; love of learning would be fostered and formal and informal groups for intellectual communion would spring up and multiply and great impetus would be given to intellectual thinking at the universities; the necessity for spoon-feeding the students would disappear and it would become practicable to introduce the real lecture system and to cut down the number of lectures radically; the quality of lectures would tend to improve, the energy of professors would be liberated for higher work and there would be real stimulus to do work of a high quality, and the introduction of a true tutorial system would also become feasible.

It is my firm conviction that unless persons of the right calibre and with adequate equipment are alone admitted to the universities, the number of lectures greatly reduced, their quality improved and their objective changed—from supplying information culled from ordinary text-books in a form useful for examination purposes to stimulating thought and study, and tutorial system introduced to ensure adequate reading of the right type, the development of critical and constructive faculties and of the powers of expression, and the creation of sound habits and character, the universities in India will not be able to perform their functions adequately and satisfactorily.

Some of the universities in India, notably Allahabad, Dacca and Lucknow—perhaps Aligarh also—have introduced some sort of tutorial system. I am not familiar with the conditions as they prevail at Dacca and Aligarh, but, from what little I know of conditions at Allahabad and Lucknow, it appears to me that what is attempted there is more in the nature of seminar work in each subject rather than tutorial work, *i.e.*, placing a few students in charge of a tutor as is done at the older English universities of Oxford and Cambridge. At both Allahabad and Lucknow for the fact just mentioned and also on account of the large number of students assigned to each tutor, it has not been found possible to establish real *personal* contact between the tutor and the students—which is the soul of the tutorial system as it prevails at Oxford and Cambridge, and which is necessary for the building up of character. I am afraid, we in India, in the modern age, have paid very little attention in our schools and colleges to the building up of character. In England, on the other hand, writes Mr. M. S. Marvin in his latest book *The Nation at School*, “as our schools have improved and the national conscience in education has awakened, the watchword has been ‘character first,’ and knowledge as subsidiary to a good all-round man. We have seen how this works in schools, and the consequent exaltation of games is patent to all men—a not unhealthy fact, but bringing with it some grave drawbacks on the intellectual side. The universities, for the major part of their activities, have been a continuation of the public schools. Just as the boy at school had his ‘house master’ who took a closer personal interest in him than the general school authorities could do, so at the universities he had his ‘tutor’ to whom he goes either alone or with one or two others,

and to whom he becomes known in his general character rather than as a student of some general topic. The link is thus. . . . predominantly personal."

"Now this is a good thing; no one who has fallen under the influence of an Oxford or Cambridge tutor of the best type would exchange it for any other educational offer. To many men the fact that they know so-and-so intimately as a friend, at an age when they were so far intellectually mature as to appreciate him, and still youthful enough to be enthusiastic, has been the turning-point in their lives. And Oxford and Cambridge, with the resources of their colleges, are able to provide this boon in a way which other universities, either at home or abroad, cannot to any comparable degree." It is such a tutorial system that is necessary for the building up of character which is badly needed in India.

V

The third great difficulty in the way of Indian universities is the foreign medium through which education has to be imparted. This difficulty is particularly great in earlier years and is also partly responsible for the inadequate equipment of the entrants to the universities. Educationists in India are now making earnest efforts to remove this stumbling-block from the way of the progress of Indian students. There are no doubt many difficulties still to be faced in this connection; but they can only be overcome when an effective beginning has been made and not beforehand as some obstinately insist on requiring. With the change in the medium of instruction the undue emphasis laid upon the study of English will also disappear and it will become possible to devote the necessary attention and time to the study of other allied subjects and to the building up of real Honours Schools at the universities.

Another difficulty that exists in Indian university is that, on the Arts' side at least, studies are not properly organised and the subjects are not grouped together in suitable combinations. Students are allowed to select their subjects without any definite scholastic aim and the combinations several of them offer are really strange and ill-assorted. As the chief aim of the students at present is to pass examinations with a view to obtaining service it matters little as to what subjects they offer for the examination so long as they get through it

easily and with high percentage of marks. To raise the academic standard and to make it possible for the tutorial system to work, it is necessary to group the subjects of study in natural combinations and to build up a system of schools in groups of allied subjects. This will become more feasible with the change in the medium of instruction and with the decrease in the emphasis on the study of English language and literature.

VI

It is not possible to deal with all aspects of university education in India in this article, but there is one other important aspect of work to which I wish to make a brief reference here, that is to the broadcasting of knowledge and culture. In my opinion, the duty of a university does not end with the training of the students in their selected special courses of study. On the other hand, it has still the duty of imparting general knowledge and culture. Every person who goes out of a university should possess wide general knowledge and culture besides specialising in a particular branch or group of subjects. With the limitation of admission to those who are fully qualified, with the reduction in the number of lectures in the specially selected courses of study and the introduction of a real tutorial system, students will have the time and inclination to attend lectures organised with a view to impart general knowledge and culture. At present there is no organised planning for this purpose at the Indian universities. Short courses of general, popular and non-technical lectures in general science, ancient culture and civilisation, rights and duties of a citizen, the system of government in the country, pressing economic and industrial problems, new advances in science, etc., should be arranged at the universities. A university must also perform another important duty—that of acting as a radiating centre of knowledge for the peoples of the surrounding areas. For this purpose courses of lectures in the vernacular should be arranged in the neighbouring areas and an effort made to disseminate knowledge among the general public. But before the universities can perform this and other functions public men and legislators in this country should clearly understand the true aims and objects as well as the limits of university work and extend to them their full sympathy and support. University education in India is still in an undeveloped

stage. Higher university work has hardly begun in this country. Indian universities are still inadequately equipped and financed for research and advanced work. For a population of nearly 400 million people the number of universities is very small. University education, therefore, does not require curtailment but extension. Of course, in any programme of educational expansion in India, mass education and technical education must occupy the first place, but, it is hoped, that the claims of university education will not be ignored.

GRADUATE UNEMPLOYMENT*

By DR. HADI HASAN, M.A., PhD.

A friend of mine, after taking the degree here and the doctorate abroad, returned to India and began scattering visiting-cards over the country; then he waylaid, in their respective universities, the sixteen Vice-Chancellors of the sixteen universities of India. Notwithstanding these laudable efforts, employment continued to elude him; but his travels in India to the sixteen centres of learning and the prolific distribution of visiting-cards had enlarged his circle of friends and acquaintances: to these with one mighty, herculean, selfless effort he gave a free presentation-copy of his thesis. There was a time when the author was travelling all over India; now that he had ceased to travel, his book was travelling. This book, curiously, contains a printer's devil which is responsible for the finest example of satire on graduate unemployment with which I am acquainted: all work and no PAY makes Jack a dull boy.

The ideal condition of affairs is a job for every graduate; actually, there are more graduates than jobs. Therefore, either increase the number of jobs or decrease the number of graduates. The first alternative is positive, the second negative; and as creation is more difficult than negation, the modern tendency is to decrease the number of graduates, to decrease the number of universities which produce these

* Summary of a lecture delivered in 1935.

graduates, to decrease the number of potential Sir Syeds which produce these universities which produce these graduates.

But even the work of destruction is not always easy. To obtain building material for his new capital of Baghdad, the Caliph AlMansur decided to destroy the Sasanian palace known as the *Aiwan-i-Kesra*; whereupon, Khalid the Barmecide put in a plea for the preservation of the palace, adding: "Verily, this palace is a symbol of the triumph of Islam." "O Khalid," replied the Commander of the Faithful, "thou hast nought but partiality for all that is Persian." For three days, therefore, the workmen hammered at the Sasanian palace, but it was made of tough material, and it resisted the pickaxe. "We have now come over to your point of view," said the Caliph, "for we find that the cost of destruction is even greater than the value of the building material we can obtain." "I now advise you," said Khalid, "to continue the work of destruction, lest it be said of you hereafter that you were not even able to destroy what another was able to construct."

Now removing students from a university is even more difficult than removing bricks from the Sasanian palace. Most universities are residential—built on an elaborate scale to accommodate students in large numbers. If the number of students is restricted, what is to happen to the boarding-houses? We are not Akbars to build Fatehpur Sikris in sheer caprice. Above all, students pay fees, and represent the lubricating-oil of the university machinery: paradoxically, they are the mother's milk of their own *alma mater*. Keventer's milk is good, but the students' milk is all cream—and this, according to the best of lactometers, namely, the budget of every university.

If you think I am proving right wrong, wrong right, reverse the position and assume that the students instead of being milked by the university do actually milk the university. If so, a university that expels student-babes from her bosom and plucks her nipples from their boneless gums must be unnatural. Infanticide might be the nearest way, but mothers in general are too full o' the milk of human kindness to catch it. The obvious solution for the universities, therefore, is to control the birth of graduates through raising the educational standard. This, I claim, the universities in India are already doing by passing only forty per cent of their alumni. Anything more would lead to

barrenness and sterility, divorce and second marriage—with the Indian air already surcharged with polygamy.

We have to abandon, therefore, the task of restricting admissions to the university : the universities are neither self-supporting nor self-existent : they exist because of the students, and it is the inalienable birth-right of every student, whether he has passed in the first, second, or third division, to be admitted to a university. Further, genius takes time in ripening and a student, who has passed his first examination in the third division, might pass his third examination in the first division : actually, if he is to be successful in the world, he must fail consistently in all examinations.

The unemployment problem, therefore, cannot be solved by decreasing the number of graduates. Therefore, increase the number of jobs. These jobs are of three kinds : government, commercial, private. Now government jobs cannot be increased : they have reached their maximum, for in Government as in Physics there is definitely a saturation point. The creation of fresh appointments means fresh disappointments : add new schools and colleges to accommodate a few teachers, and you create a new army of unemployed graduates.

There remain other jobs—commercial, scientific, private, professional. But is India not already full to the brim with scientists, commercial managers, private practitioners? Yes, but when Alexander had distributed his conquests, they asked him what he had retained for himself and he answered “ Hope.” And so there is hope for us—for business enterprise is not Government service where a single competitive test once passed by a candidate determines his weal for ever and protects him against all subsequent incompetence. In business, competition is a matter of daily routine, and the inevitable result of competition is improvement. The majority of the people know that they are incompetent, and knowing their incompetence they fear they will be ousted. They should, therefore, try to make themselves competent ; but this is an uphill task, particularly for raw graduates, accustomed to easy examination-tests—people who have passed some examinations by putting notes into their head, others by putting their head into their notes, until they have finally emerged as bachelors by ceasing to be bachelors, that is, by taking the supreme degree of son-in-law. Fear of competition drives the graduate from professional

service to government service, and saturation in government service drives him back to professional service. The result is unemployment of which the sole cure is "competence." I have yet to meet a competent man who died of starvation--especially in India where the orphan-producer is protected equally with his orphans.

The fault, therefore, dear Brutus, is not in our stars but in ourselves that we are underlings.

Brutus and Cæsar: what should be in that 'Cæsar'?

Why should that name be sounded more than yours?

Write them together, yours is as fair a name;

Sound them, it doth become the mouth as well;

Weigh them, it is as heavy; conjure with 'em,

'Brutus' will start a spirit as soon as 'Cæsar.'

Now, in the names of all the gods at once,

Upon what meat doth this our Cæsar feed,

That he is grown so great?

I can give the answer in one word--competence.

Do you think I am theorizing? I can present concrete instances of employment through improvement. I met an Indian chauffeur in Persia who had made a fortune out of lorry-driving. "When my father died," said he, "my brother seized the property and I just cleared out of the country and started lorry-driving in Persia. There, in the school of adversity I became a student of psychology: I noticed that the majority of overland travellers to Persia were pilgrims to Meshed--and pilgrims to Meshed, merely because they are pilgrims and not tourists, prefer to travel non-stop to Meshed. Meshed is 614 miles away from Zahidan but I volunteered to drive this distance non-stop. Eventually, I had the pilgrim traffic under my control; opened a Caravanserai and a shop in Meshed, and now my income is even more non-stop than my travels."

I, therefore, put to you that there is still scope for lorry-driving in Persia.

Recently, I wanted to get a thesis typed and paid good money for bad work. How much more money would I not have paid for good work?

I, therefore, put it to you that there is still scope for typewriting in India.

Recently, I fell seriously ill and treated myself during my own illness. "Why not consult a doctor?" said a friend, "there are plenty of doctors." "Because I wish to die a natural death," was the answer.

I, therefore, put it to you that there is still scope for medical practice in India.

Recently, I met an employment committee at Aligarh, whereof the members were travelling in state, living in luxury.

I, therefore, put it to you that there is still scope for employment even in unemployment in India.

But may I drop the I and turn to your Dean of the Faculty of Arts, Professor A. Jha? He could have rested on his laurels but he has forged ahead—not because the seven heavens rent themselves asunder and a voice cried out from the deep: "in him I am well pleased," but because of sheer grit, energy, and force of character.

In peace there's nothing so becomes a man
As modest stillness and humility:
But when the blast of war blows in our ears,
Then imitate the action of the tiger;
Stiffen the sinews, summon up the blood,
Disguise fair nature with hard-favour'd rage,
Then lend the eye a terrible aspect;
Let it pry through the portage of the head
Like the brass cannon.

Therefore, my tip to you is this: take the degree (why take the degree I shall explain presently) and supplement it with real knowledge; and at an interview, instead of using the old formula: "Sir, I am a man of culture and come from a good family with bad physique," say: "I am a man of guts, stuff, and stamina. I can take fortune's buffets and rewards with equal fortitude and thanks. I know but little, but for the little I know I demand the following salary. This, dear sir, might appear to you extravagant, but if I were to demand payment from you for what I do not know, you would go bankrupt within an

hour." For a man who can express himself in this fashion there is no unemployment problem in India, for the man who did actually express himself in this fashion was the best-paid officer in the Safawi empire.

Now, why take the degree? For four obvious reasons :—

Firstly, because man does not live by bread alone : his cultural and intellectual hunger has also to be satisfied. The indigent graduate is a less offensive sight than the illiterate man of wealth : the former provokes pity, the latter contempt.

Secondly, to remove the disqualification of not being a graduate.

Public opinion argues as follows : a graduate may not be a genius but a non-graduate is essentially a duffer.

Thirdly, to secure jobs—jobs being defined as no work, all pay.

Public opinion argues as follows : pension is not half salary given in old age, but salary is double pension given in manhood.

Fourthly and finally, because the degree is easy to take, and because during the period of his residence, every undergraduate is essentially an employer.

For these reasons I advise you not merely to take the degree but to take your time in taking it; for the moment you have actually taken it you have reduced yourself from the position of an employer to the position of an employee or even the unemployed.

THE STUDY OF FOREIGN LANGUAGES IN EUROPE, WITH SPECIAL REFERENCE TO INDIAN LANGUAGES

By DR. DHIRENDRA VARMA, M.A., D.LIT. (PARIS).

Let it be stated at the very outset that the conditions in which Hindi, or as a matter of that any other foreign language—European or otherwise—is studied in any country in Europe, are very much different from those with which we educated Indians are familiar in our country.

It is always with some definite object that the state provides facilities for the regular study of a foreign language. Let us clearly understand the object or objects which led European nation to encourage Indian studies in their countries. During the 17th and the 18th centuries, when the European nations came into contact with India, chiefly on account of commercial relationship, they required a few interpreters to help them in their business. There was, therefore, no need to encourage or organise the study of Indian languages on an elaborate scale, more so as the contemporary living languages of India were not regarded worth the trouble from linguistic or literary points of view. At the end of the 18th century the discovery of Sanskrit, the most ancient classical language of the land, proved an eye-opener to the scholars of Europe. In it they found reflected the earliest history of their own languages. The literature preserved in this hoary language of India threw new light on the pre-historic stage of their own cultural history which, they supposed, had been lost for ever. In the words of a well known Sanskritist of Europe " The study of Sanskrit owes its permanent interest chiefly to the fact that the ancient language of India has been proved to be most intimately connected with the classical languages of Europe and in it has been found the most secret archives of the history of language in general; the Veda would never have engaged the serious attention of a large class of scholars, if this ancient literary relic had not been found to shed the most unexpected light on the darkest periods in the history of the most prominent nations of antiquity " (Max Müller, *Preface to the Rigveda Samhita*, Vol. III, 1856).

Gradually, one of the European nations, the British, developed political relations with our land and now, besides their commercial needs, they found themselves face to face with the necessity of chalking out policies in the new field of administration and also programmes for the side-activity of their Christian missions. Thus a good knowledge of Sanskrit literature on the part of some of their countrymen appeared to be indispensable from the point of view of their practical needs. It may be kept in mind that our new rulers had not yet been able to manufacture the new type of the Anglo-Sanskrit scholar from amongst Indians themselves. In support of the above views a portion of an article entitled " Caste " may be found interesting. It was

written as early as 1858 by the German Sanskritist Max Müller whose services were utilised by the British people for want of a suitable Sanskrit scholar amongst themselves at that time. The Hindus are never tired of expressing their gratitude to "Moksha Mular" for bringing out the first printed edition of the Rigveda along with the commentary of Sayanacharya. The costly venture was financed by the East India Company. Very few Indians know the real object of this extraordinary interest which was shown by the Company Bahadur and their German employee in this matter. Below are the words of Max Müller himself, the editor of the great work.

"In their controversies with the Mohammadans and in more recent times with the Missionaries, the Brahmans, if they were hard pressed, invariably fell back upon the Veda. The Laws of Manu and other law-books were printed and translated. Some of their Puranas also had been rendered into English and French. With regard to these therefore, the missionaries could ask for chapter and verse. But the Veda was unknown to either party, and the principle of *omne ignotum pro magnifico*, the Brahmans maintained, and the missionaries had to believe, that everything which was to be found nowhere else was to be found in the Veda. There was no commandment of the Old Testament which, according to the Brahmans, might not be matched in the Veda. There was no doctrine of Christianity which had not been anticipated in the Veda. If the missionaries were incredulous and called for the manuscripts, they were told that so sacred a book could not be exposed to the profane looks of unbelievers and there was an end to all further argument.

"Under these circumstances it was felt that nothing would be of greater assistance to the missionaries in India than an edition of the Veda. Prizes were offered to any Sanskrit scholar who would undertake to edit the work, but after the first book, published by the late Dr. Rosen in 1838, no further progress was made. The Directors of the East India Company, always ready to assist the missionaries by any legitimate means, invited the Pandits, through the Asiatic Society at Calcutta, to undertake the work, and to publish a complete and authentic edition of their own sacred writings. The answers received only proved what was known before, that in the whole of Bengal there was not a single Brahman who could edit the Veda. In spite of all these

obstacles, however, the Veda is now being published in this country under the patronage of the East India Company. The missionaries have already derived great assistance from this edition of the Veda and its commentary, and constant applications are being made by various missionary societies for copies of the original and its English translation. The Brahmans, though they did not approve the publication of their sacred writings by a Mlechha, have been honest enough to admit that the edition is complete and authentic." (*Chips from a German Workshop*, Vol. II, article of "Caste," pp. 309—311).

How Sanskrit studies could be helpful in the administration of India would become amply clear by the perusal of the whole article from which the above extract has been taken. Only one point may, however, be mentioned here by way of illustration. One of the causes of the so-called Indian Mutiny was supposed to be interference in the caste prejudices of the sepoys. The British administrators were, therefore, anxious to know the real history of caste in India so as to handle in future administrative matters touching caste accordingly. This article written in 1858 is the result of one of these enquiries which were started by the Sanskritists in England at the instance of the British Government—a volume of Muir's Sanskrit Texts being another result of researches in the same field. Here is the conclusion—the result of the study of the ancient Sanskrit texts at which Max Müller arrived from the point of view of British and Christian interests.

"As the case now stands, the Government would be perfectly justified in declaring that it will no longer consider caste as part of the religious system of the Hindus. Caste, in the modern sense of the word, is no religious institution; it has no authority in the sacred writings of the Brahmans, and by whatever promise the Government may have bound itself to respect the religion of the natives that promise will not be violated even though penalties were inflicted for the observation of the rules of caste. It is a different question whether such a proceeding would be either right or prudent, for, although caste cannot be called a religious institution, it is a social institution, based on the law of the country. It has been growing up for centuries, and the whole frame of Hindu society has been moulded in it. On these grounds the question of caste will have to be treated with great caution : only it is right that the question should be argued on its real merits

and that religious arguments should not be dragged in where they would only serve to make confusion worse confounded. If caste is tolerated in India, it should be known on both sides that it is not tolerated on religious grounds. If caste is to be put down, it should be put down as a matter of policy and police." (*Ibid.*, pp. 322-323.)

Max Müller's advice to the missionaries is different: "The missionaries are not obliged to act with the same vigour. Their relation to the natives and particularly to their converts, is a private relation, and much of their success will depend on their discretion in dealing with native prejudices." (P. 357.) At another place in the same article the learned writer adds: "Caste, which has hitherto proved an impediment to the conversion of the Hindus, may in future become one of the most powerful engines for the conversion not merely of individuals, but of whole classes of Indian society."

It was for these various objects, briefly described above, that European scholars and Governments, particularly British scholars and Government, became interested in the study of ancient Indian languages, literatures and cultural institutions with the result that chairs were gradually provided in almost all the important British Universities during the last one hundred years. On the continent also, there grew up several centres—such as, Paris, Berlin, Prague, St. Petersburg—where provision was made for the study of the classical languages of India. Exact knowledge of India is very useful for Britain; it should not be ignored that it can prove at least of some help both to her friends and enemies also. It should further be remembered that there may be rivalry amongst European nations with reference to India in the fields of administration and commerce, but in the field of missionary activity they are all one.

The history of the study of modern Indian languages in Europe is almost similar to that of the Indian classics only with one difference that the latter had a good start. The best arrangement in Europe for the study of modern Indian languages exists naturally in London, though even here these studies were given a regular shape very late—practically after the Great War. A few details in this connection may not be out of place.

After prolonged and chequered private attempts, which extended over a century and which were doomed to failure, the treasury appointed

in 1907, a Committee to consider the organisation of Oriental Studies in London. Below are some of the relevant conclusions at which the Committee arrived :—

- “(1) There is urgent need for the provision of suitable teaching in London for persons about to take up administrative or commercial posts in the East and in Africa. A knowledge of the language and some preliminary knowledge of the history and religious and social customs of the country to which they are appointed is essential to such persons.
- “(2) The Committee desire specially to call attention to the disadvantages under which in this respect London lies as compared with Paris, Berlin and St. Petersburg. As England is the country which above all others has important relations with the East, the fact that no Oriental School exists in its capital city is not creditable to the nation.” (*Calendar of the School of Oriental Studies, London, page 23*).

This object is made further clear by the text of the Resolution passed at a public meeting which was held in 1914 to raise funds for the scheme. In this meeting, Lord Curzon moved the following resolution: “That in view of the great imperial and commercial interests dependent on adequate provision being made for instruction in the languages, the literature and the social customs of Oriental and African countries this meeting desires heartily to support the scheme for the foundation of a School of Oriental Studies in the city of London.” The text of another resolution passed at this meeting runs as follows :— “That this meeting desires to commend to the commercial community of the city of London, and to the general public, an appeal for the funds necessary to enable the School of Oriental Studies to be opened in 1915 on a satisfactory financial basis.”

The recommendations of the Committee appointed in 1907, were ultimately incorporated in the Chapter of Incorporation passed in 1916 in the following language: “The purpose of the school are to be a School of Oriental Studies in the University of London to prosecute study and research and to give instruction in the Languages of Eastern

and African peoples, Ancient and Modern, and in the Literature, History, Religion, Law and Customs and Art of those people, especially with a view to the needs of persons about to proceed to the East or to Africa for study and research, for the public service or commerce or for the pursuit of a profession or other calling”

The Calendar of the School mentions further (p. 35) that “the lectures and classes are open also to those who have not matriculated and do not wish to follow a full University course—especially to those who are going to the East or to Africa in any capacity, whether in the service of the Government or as missionaries or to engage in a profession or in commerce or to those who have temporarily returned from the East and wish to continue their studies while in England.” “Special classes are held for Naval, Military and Air Force officers; for officers in the Sudan or Colonial services, for missionaries, and for Banks and other Commercial undertakings.”

The object of the School has not been ignored in the constitution of the Government Body of the School which includes, besides other representatives, the following: one member each appointed by the principal secretaries of State of Foreign Affairs and Colonies, one member appointed by the London Chamber of Commerce, two members appointed by the Secretary of State for India and three members appointed by the Government Body with a special regard to the interests of commerce.

The School opened its doors to students on 18th January, 1917, to fulfil the objects enumerated above. It started with 9 students; it has now an average attendance of 550 students.

Instruction is given in the following languages: African, including about 20 dialects, Arabic, Turkish, Georgian, Armenian, Iranian, Sanskrit, Pali, Prakrit and almost all the modern languages of India, Tibetan, Burman, Tai, Chinese—Mon-Khmer, Austro-nesian, Papuan, Japanese and Mongolian. The teaching includes—phonetics, culture, history and linguistics of the languages taught in the school.

That the school is fulfilling its function properly is proved by an analysis of the total number of students who were trained in the institution during the academic year 1934-35. These include all the different types of students, for there are several varieties of scholars in

the school such as regular, part-time, occasional, etc. The analysis is as follows :—

Degree and research students ...	...	...	55
L.C.S. Probationers ...	...	...	11
Forces of the Crown ...	...	...	23
Students for Colonial services ...	...	...	41
Missionaries ...	...	...	72
Students connected with Banks and Business house ...	...	...	52
Others, mainly occasional students ...	...	...	170
GRAND TOTAL ...			424

In this connection another table may prove of some interest. After getting training in the school, British youngmen proceeded to the following countries for administrative, commercial and missionary purposes :—

Afghanistan ...	1	India ...	103
African Colonies of		Iraq ...	5
Britain ...	77	Japan ...	9
Arabia ...	3	Malay ...	27
Burma ...	19	Palestine ...	12
Ceylon ...	6	Persia ...	16
China ...	29	Sudan ...	13
East Indies ...	1	Tunis ...	1
Egypt ...	12	Turkey ...	5

Now one cannot but admire the ingenuity of our countrymen specially of those connected with our Universities. We have no colonies, no missionary activities, no banking or commercial enterprises in foreign lands. We have, however, discovered a new method to derive purely academic benefit from this institution which was found by the British people to fulfil their own practical needs. During one academic year 1934-35, we sent as many as 74 professors and brilliant students—the best products of our own Universities—to this School for higher training in Indian languages and literature. Out of these 10 got recognition for their creditable work by the conferment of the degree of Ph.D.

Some of the subjects of research for which our students went to the School were :—

Panjabi Sufi poets.

The Reign of Sahu Chhatrapati.

Hali as poet, critic, and biographer, and his influence on Urdu literature.

The Kingdom of Bijapur.

The Speech and Customs of the Cuhras of the Punjab.

The History and Literature of the Gaudiya Vaishnavas and their relation to other mediaeval Vaishnava Schools.

One is reminded of the Sanskrit literary tradition about the cuckoo and the crow. It is said that the cuckoo is a very clever bird in this respect that as soon as it lays eggs, it carries them to the nest of a crow and leaves them there along with those of the latter to be hatched. The foolish crow looks after these eggs and when they are hatched, it brings up the young ones of the cuckoos along with its own. Finally, when the young ones of the cuckoos grow wings and get training in flying they come back to their own fold. It is for this reason that one of its well known names in Sanskrit for the cuckoo is Parabhr̥ta, literally “brought up by others.” Evidently, we are as clever as the cuckoo in the field of the training of our scholars.

Some details about the scope of teaching with regard to modern Indian languages may be of interest at this stage. The School of Oriental Studies, London, provides instruction in the following 18 living languages of our land :—Assamese, Bengali, Gujrati, Hindi, Hindustani, Sindhi, Urdu, Sinhalese, Shina, Kanarese, Malayalam, Tamil and Telugu. The list is rather an impressive one, specially when we think of our own Universities. For instance, the number of modern Indian languages for which provision is found in the University of Allahabad is only two, *viz.*, Hindi and Urdu. Even Hindustani, the fondling of both the officials and the high-placed Indian gentry and recently of the Congress, has not yet attracted the attention of our University authorities. But without examining some details about the teaching, it is, however, not possible to understand the real state of affairs with regard to the extraordinary provision which appears to

have been made by the European institutions. In London, three teachers are in charge of all the 18 Indian languages. Further, it is not necessary to make arrangement for teaching all the languages; in practice facility is provided for teaching three or four languages every year. The number of lectures delivered on any one language is generally 2 or 3 per week. The period of the general study extends to two years in almost all the European centres. At the end of each year, the school gives a certificate to the successful candidates. There is also provision for a Diploma for such exceptional and rare students who continue their studies for a third year. In the first year, the scope of teaching extends from A class of our primary schools to class 1, and in the second year from class 2 to 3. For First or Second Year certificate in a language, the examination consists of two or three written papers, dealing with translation from certain specified or unspecified texts into English, translation from English into the language concerned along with a few questions on grammar and cultural history of the people speaking the language. The *viva voce*, conducted partly in the language and partly in English, includes dictation, questions on language and such other general matters as describing a picture previously unseen, reproducing a short story told to the candidate on the spot, reading aloud from an unprescribed text, general conversation, etc.

The extent and depth of knowledge of Indian languages which the students acquire at the end of two years can be measured by overhearing the conversation of any young joint-magistrate fresh from London with his bearer. A personal experience of mine may, however, be given by way of illustration. When in Paris, I used to help occasionally a few students of the Hindi class of "Ecole Nationale des Langues Orientales Vivante," the School of Oriental Studies of the French people. Most of these students were French youngmen but because Paris is regarded as the best centre for Oriental Studies on the Continent some belonged to other European nationalities also. One of these students came to me one day in jubilant spirits and told me that he had detected a serious mistake in one of the Hindi sentences which I had given him for translation. He then opened his copy book with glee in his eyes and pointed out the sentence in question which ran: 'Ghora zamin par lota.' The young scholar told me that it was not a complete

sentence as there was no verb in it. I could not follow his argument and enquired how. He then orally translated the sentence as follows: ' *Ghora* a horse, *zamin par* on the earth, *lota* an Indian jar for water ' and then began to look triumphantly towards me.

Perhaps it may be news to many that the University of London recognises several modern Indian languages including Hindi, as optional subjects for the Matriculation, Intermediate and even B.A. Pass examinations. The School of Oriental Studies is supposed to coach students for these advanced examinations also, but usually the classes held for Certificate and Diploma examinations serve the purpose with slight readjustments. And this is no wonder because the scheme and the courses of studies of these University examinations are not very much different from those of Certificate and Diploma Examinations. For instance, the courses of study in Hindi for B.A. Examination of the London University consist of :—

1. Translation from specified texts with questions on their language and subject-matter.
2. Translation from unspecified texts, and translation from English into Hindi.
3. Questions on the Language, Literature and Grammar.

The specified Hindi texts for European students are two, *viz.*, Tulsi-das: Ramacharitmanas, Ayodhya Kanda, and Prem Chand: Prem Purnima (*Calendar of the School of Oriental Studies*, p. 141). It has not been possible to find definite figures as to how many English young-men took the B.A. degree from the London University in Hindi. It is, however, certain that if any one has been fortunate enough to get the rare distinction, any Indian University will feel proud to appoint him as a Professor of Hindi Language and Literature.

The history and arrangement for the study of Oriental languages in the Continental centres is not very much different from that at London. The chief difference is that in London emphasis is laid on the study of language and cultures of the colonies of England, while on the continent greater attention is paid to the study of the languages of their own respective colonies. For instance, while there are three teachers for Modern Indian languages in the School of Oriental Studies, London, there is only one at the Paris School. But there is more

elaborate arrangement at Paris for the study of modern Arabic and Chinese, the official languages of their own colonies. In the arrangement for the study of the Oriental classical languages also, the difference may be clearly observed. Because of the French colony in Indo-China, one finds that greater attention is paid to the study of Pali and Buddhism in France; England is more interested in Sanskrit.

To be frank, the point of view of Europeans is extremely practical. They try to acquire some knowledge of the language, literature and culture of the Oriental people, with whom they are concerned for various reasons. This knowledge is generally elementary for it is conveniently supplemented by the knowledge of the educated natives of their colonies, both in the field of the language of the home-country as also with regard to the interpretation of the colonial information through the medium of the Imperial language. If the native from the colonies can speak and write in English or French fluently there is the need for an English or French scholar of an Oriental language to acquire such proficiency in the tongue concerned.

It may, however, be admitted that there are certain advantageous circumstances, due mainly to the political relationship of the Oriental Countries with those of Europe, which affect the study of Oriental languages there :—

1. For instance, European scholars have done much work in their languages and literature and so one can find any number of models for one's own language and literature.
2. It is strange but none the less true that for work in Indian languages, the best libraries are to be found in England and not in India. There is a rule that three copies of every published book in India are to be submitted to the Government. One or two of these copies remain in India, perhaps in the Secretariat or in some local offices—in any case they are not placed at the disposal of the student or the public—while the third copy is deposited in the library of the British Museum and thus one can consult each and every published book, for instance, of Hindi, in London but not in Allahabad, Benares, Delhi or even Calcutta.

3. The collections of Sanskrit and Hindi MSS. are also very much bigger in Europe. MSS. reached there with other Indian relics—historical or otherwise. The result is that one can edit better some of the well known Hindi books sitting in the reading-room of the India Office, London, than roaming about for years in all the Hindi libraries of India. There is practically no MS. section worth the name even in such of our well-established institutions as the Nagri Pracharini Sabha, Benares, or the Hindustani Academy, Allahabad.

It may also be acknowledged that the percentage of real professors—lovers of learning—is greater in European Universities than in India. Employed generally for teaching elements of Indian languages, even such teachers mostly develop a passion for their subjects. They try to understand and gather every bit of information dealing with their branch of study. Of course, they are much handicapped, for their general command of the language concerned is generally very much limited. But in spite of it all they put in the best of their energy, judgment and independence of thought—qualities which they imbibe with their general education. One gets real inspiration when one comes in contact with a genuine type of a teacher.

It is possible to add to the list of such general advantages, but when one has to go into details of the study of any one particular branch, one finds serious limitations some of which have already been hinted above.

It is written in one of the ancient Sanskrit works that by way of a psychological experiment a Rishi once asked one of his disciples to remain for a long period in a dark cave, musing constantly over the imaginary idea that he was a buffalo. When at the end of the period the *guru* asked his disciple to come out of the cave, the disciple replied from inside “Guruji, I cannot come out as I have grown horns which are a source of obstruction to my free movements.” It would be a sacrilege to suggest that the Indian scholar trained on the lines of the European system of education has developed any bias of the type hinted in the story.

THE PLACE OF PSYCHOLOGICAL TESTS IN EDUCATION

By MR. R. N. VAISHNAVI, M.A.

Before I attempt any description of these tests, I feel it imperative on my part to make a passing remark regarding the general trend of the educational policy in India. The present system of education in our country, consciously or unconsciously, explicitly or implicitly, has successfully advanced not towards integration, but disintegration, not towards expression, but suppression of individuality. The aim of education should be the creation, cultivation, and formation of personality. The arousal of self-consciousness, development of self-expression, and appropriate direction of mental energy should be the determining factors of any concrete system of educational organization.

“Educational efforts,” says Sir T. P. Nunn, “must be limited to securing for everyone the conditions under which individuality is most completely developed—that is, to enabling him to make his original contribution to the variegated whole of human life as full and as truly characteristic as his nature permits.” It is no wonder if India is increasingly invaded by unemployment and general discontent. Education, which must be based on the fundamentals of freedom and liberty, has, here in our country, defeated its own goal. Instead of creating hope and happiness, the first indications of true education, it drains us not only of what little we have materially, but also of the stores of our mental energy, which had once inspired the eastern intellect, and created the glorious past! Thus our country at present suffers both from the economic exploitation and the mal-adapted and misdirected psychic powers. Hope and ambition are the two main motive forces of national progress, and where they are checked, national decay is the obvious result. “Inadequate and imperfect mental functioning,” says Dr. Hildreth, “result in inestimable loss to the society. Part of this loss is attributed to the mal-adapted educational procedures and failure on the part of the educators to study the present and future needs of the pupils.”

My criticism is not directed against any particular individual or individuals, but against the method in which education is imparted to

the Indian mind. The same material which is being thrust upon and poured into the receptive minds of the young students, both in schools and colleges, could be utilized in such a way as to create and cultivate interests in their minds with the result that instead of disappointment and failure, hope and success would be the guiding lights of our activities.

What is true of India applies in some measure to other countries as well, the only difference being that these countries keep pace with the advance of time and advent of new theories and practices, while our unfortunate country lags far behind.

I think it will not be inappropriate to state the fundamentals of education as they are conceived by the New Education Fellowship which I cite from the recent report of this progressive organization :

1. " Education should equip us to understand the complexities of the modern social and economic life, safeguarding freedom of discussion by the development of the scientific spirit."
2. " It should take adequate provision for meeting the diverse intellectual and emotional needs of different individuals and afford constant opportunity for active self-expression."
3. " It should help us to adjust ourselves voluntarily to social requirements, replacing the discipline of fear and punishment by the development of intelligent initiative and responsibility."
4. " It should promote collaboration between all members of the community. This is possible only where the teachers and the taught alike understand the value of character and independent judgment."
5. " It should help us to appreciate our own national heritage and to welcome the unique contribution that every other national group can make to the culture of the world. The creation of the world citizens is as important for the safety of modern civilization as the creation of national citizens."

Having presented a brief sketch of the fundamentals of true education, let me proceed to state the nature of the psychological measurements, and see how they help us in the system of mental training and discipline.

Educational, or more appropriately the psychological, measurement is a phrase which hardly needs any definition for those who are in a close touch with the forward march of the educational policy. Psychological measurements have not brought out new things in the sense in which physics and chemistry have done, but they have thrown a flood of light on things which make up our life histories. They "help us to a better understanding of human nature."

The application of psychological principles and methods has become an indispensable factor for the improvement and the right adjustment of pupils in all western countries. Child has become their 'problem' and the 'centre' of study. The importance of nature and nurture has been recognized. Take an African negro infant as soon as it is born and place him among the most civilized group of individuals with all the modern inventions of growing complexity. He will not act like his savage parents when he attains maturity, far less will he respond like his civilized companions. He will be above the range of his savage nature and below the height of the civilized. Both nature and nurture react upon and influence each other, either positively or negatively. The same would be true if an infant of the most civilized stock were to be placed among a group of savages.

At this stage we have to explain two important factors, *i.e.*, heredity and environment. So far as heredity is concerned we have to recognize that nature does not believe in the principle of equality. All individuals do not inherit the same measure of ability. This gives rise to the principle of individual differences. Besides the specific abilities individuals differ in temperamental traits as well. Thus any educational system must be adapted to individual capacity and temperament, which should take special care of mentally deficient children. For the modern teacher it would be an unpardonable sin to ignore this important principle underlying his task. For him it is imperative to know how far one particular child differs from another child; his judgment should not get impaired by his personal interest in one pupil and indifference in the other, nor should he base his judgment on what is known

as the first impression—appearances are deceptive, and we are told, for the matter of that, that Socrates was the ugliest person in the whole of Athens. The judgment of the modern teachers should be a scientific diagnosis of the diverse and complex factors of human nature, such as, the willingness to do a task for a long period, quickness of decision, accurate and rapid perception, visual and auditory acuity, range of different interests, emotional excitability in the centre of some complex situation, sociability, motor inhibition and motor adaptability; intellectual interests, such as, language, mathematics, painting, poetry, music; temperamental complexes, such as perseverance, boldness, self-assertiveness, and submissiveness, acceptability of moral sanctions, and so many other factors.

To quote Dr. Hildreth, “The extravagant waste in the education of repeaters and particularly of mental defectives, the ill-adapted preparation of the child who drops out of school as soon as the law allows, the failure to conserve and utilize the talents of the gifted, the negligence and ignorance shown in the treatment of the unstable child, the blunders of mass instruction, all indicate the inadequacy of many educational institutions in meeting pupil and social needs.”

This problem of school failure has attracted the minds of the leading educationists in Europe and America. Their ceaseless efforts gave them an insight into the truth of the problem. They formulated such a procedure as to find out the curve of innate abilities in the child, the central tendency, and any defect in right functioning of the mind. These tests are objective in character, and any expert can by proper application of these tests arrive approximately at the same conclusion. They are often of very simple construction, and reveal the general and specific characteristics of the child to a high percentage.

To trace the development of this branch of knowledge, the psychological measurements, I can but state briefly the various revisions and investigations that zealous students have been undertaking ever since this conception possessed the minds of Psychologists.

The idea of measuring the abilities of pupils was conceived by an Englishman as early as 1864. He was the Reverend George Fisher. The instrument he applied was called the Scalebook. This proved unsatisfactory, but it possessed the essence of that from which the

present-day educational tests are constituted. These "Scalebooks" were limited to the use of the school where the idea was originated. It is very recently that Prof. E. L. Thorndike has called attention to this plan of measuring the achievements of the pupils. But it must be noted that until the modern statistical methods had been worked out by Sir Francis Galton the construction of these measuring scales was not of much utility.

In a sentence or two, it may be mentioned that the development of the measurement of general intelligence or capacity to learn originated separately from the measurement of the achievements of pupils. Formerly indirect methods of measuring the mind were adopted, such as phrenology, physiognomy; and later on certain physical measurements were proposed by physiologists as a means of learning about the child's mind, and closely connected with these methods were those of reaction, time and other mental functions. It ultimately was to fall to the lot of Binet in 1905, to propose the method which is more generally used. His works mark the beginnings of our present measurement of general intelligence. Group intelligence tests are a still more recent development.

We must remember that in the early period of the development of general intelligence tests, two groups of workers have contributed to the formation of standardized objective tests: psychologists and the school administrators.

The former were interested in analysing the function of the human mind and frequently devised tests in the school subjects. Though pseudo-scientific in character, yet they were generally objective. The latter, *i.e.*, the school administrators, were "interested in the question of the courses of study, school organization, methods of instruction." Until very recent times, such questions were on a controversial basis and the side which attracted ardent devotees was generally crowned with success.

But for a quarter of a century, both the psychologists and the educationists have cooperated and directed their attention to answer these questions in a more scientific manner, and consequently, the formation of the standardized objective tests has been initiated.

Some of the distinctive and leading workers who have contributed to this movement may be briefly mentioned below.

Dr. J. M. Rice is the pioneer of America in the field of standardized objective tests. He did not contribute directly to standardized tests, but his contribution to educational measurements was in the use of tests in certain school subjects for answering questions concerning the best course of study, time allotment, methods of instruction and the like.

Dr. Rice's first investigation (1894-95) was in the field of spelling. His thesis of this subject was severely criticised. Later on he devised tests in arithmetic and language.

Prof. E. L. Thorndike has made many contributions to the development of the standardized objective tests. He was a student of statistical method at the time of Dr. Rice's work. He was greatly interested in psychology and thus we find that his work differs from that of Rice's who was mainly actuated by the administrative interests rather than psychological. In 1903 Thorndike in collaboration with Fox, published a study entitled "Relation between different abilities in the study of Arithmetic," and in this a number of tests on the operation of arithmetic were used.

In 1904, he published *Mental and Social Measurements*, for many years the only source book on this subject. It was revised in 1913 with an addition of some concrete illustrations. In addition to an account of statistical procedure, this book contained many of the principles upon which the construction of the present tests is based.

In 1909, he presented his Handwriting Scale, the importance of which cannot be overlooked or ignored in the development of the educational tests. Though the characteristics of a pupil's handwriting is qualitative but Thorndike made possible the description of the general merit of handwriting in quantitative terms.

Hillagas, in 1912, applied the principles underlying the construction of Thorndike's Handwriting Scale to the field of English composition, and since then, it has been modified and elaborated by a number of workers.

Prof. C. W. Stone was inspired both by Rice and Thorndike with the result that he shows the symptoms of a combined interest of a psychologist and a school administrator. He devised two tests in arithmetic, one on the fundamentals and the other on the reasoning. These tests were objective in so far as the printed directions were provided for giving them and for the scoring of test papers, so that

different workers would obtain approximately the same results in applying the tests to the same pupils. Stone was more scientific than Rice.

Prof. S. A. Courtis was interested in measuring the growth of pupil's ability in arithmetic, and found the Stone tests unsatisfactory for this purpose. In the year 1909, he devised a group of arithmetic tests which he called series A. The series consisted of eight tests. There was a test on the fundamental combination of tables in each operation. Two tests were devoted to reasoning or solving problems. A great deal of care was taken in the construction of these tests, and in formulation of their directions and record blanks for their administration. A time limit was set so that measures of the rate of work were secured. The scoring was made objective, and the tests were standardized.

The comparison of the measures of achievement with the norms furnished a diagnosis of the pupils with respect to their educational needs. The extensive use of these tests convinced Courtis that they were unsatisfactory in a number of ways, and, therefore, a new group of tests in 1912—14, called series B, was constructed. These are generally known as the Courtis Standard Research Tests in Arithmetic. These tests measure both rate and accuracy.

Prof. L. P. Ayers contributed to the development of the educational measurement in that he presented a handwriting scale in 1912 and a spelling scale in 1915. The Ayer's handwriting scale represents an ingenious attempt to secure an objective index of the quality of handwriting. Legibility was adopted as the criterion of quality and it was calculated from the average rate of reading. But it was not superior to Thorndike's, the only difference was that the latter employed much simpler method; Ayer's most significant contribution is his spelling scale.

In 1913, B. R. Buckingham published the account of the derivation of his spelling scale. Though of little importance in usefulness, it bears a distinctive historical character in the development of the educational tests. Words were selected and their difficulty was determined on the basis of percent of correct spellings by pupils in the various school grades. These words were then arranged in the order of their difficulty. Beginning on the one end with the easiest word,

it ended with the most difficult one. The idea underlying this measuring instrument is that the ability of a pupil may be measured in terms of the level of difficulty which he is able to reach on the scale.

So far these great investigators were absorbed in inventing the instruments for measuring the achievements of the pupils in school subjects. Because of the close connection of the general intelligence with the achievements, it is most desirable to mention briefly the development of general intelligence tests. In 1904, Binet, a French psychologist, was appointed by the French minister of Public Instructions a member of a commission for the organization of classes of sub-normal children. This suggested Binet the problem of devising some means for determining what children were subnormal. Thus Binet's first scale appeared in 1905. It included thirty tests and was roughly standardized.

The scale of 1908 consisted of fifty-six tests and could be applied to children of three to thirteen years. This scale was revised and republished in 1911. The Binet tests appeared to the American mind as most fruitful and were extensively used in educational centres there. Along with their application revisions of these tests were made by men like Goddard, Yeekes, Kuhlman, but above all Terman's revision of Binet's scale is most extensive and fundamental. Otis, a pupil of Terman, "has also worked out an absolute point scale on the basis of the Binet tests." Of all the revisions of Binet's point scale, that of Terman's is most important. This is known as the "Standard Revision."

Binet expresses the mentality of the child by "giving his mental age in relation to his chronological age." Supposing a child of twelve years might show a mental age of ten according to Binet's norm of general intelligence; Binet would place him as two years below in mental age. Terman indicates the mental age of a pupil in terms of I.Q. (Intelligence Quotient) which was obtained by dividing the mental age of the child by his chronological age which is generally multiplied by 100. The main value of I. Q. is that "it expresses the innate intelligence in a more or less absolute way."

I am not entering into the various criticisms which have been levelled against the Binet tests, for their absolute and verbal nature and how further suggestions and revisions have been offered, most

important of which I have stated. I leave this to your interest in this field.

Here it is important to state in the language of Cyril Burt, "that a child's ability should not be assessed solely by his progress at school or by his performance in psychological tests of a verbal type." Thus, tests solely of non-verbal character have been devised to measure approximately the mechanical, manual and practical abilities of a child. These are called "Performance Tests." The most common of these tests is the form board, in which the subject is required to fit "wooden blocks of various shapes into forms cut out to receive them." This test was originated by Saguin and Goddard. There are other form boards such as Healey form board; the subject is required to put five unequal wooden blocks of rectangular size in the empty space of an oblong in such a way that no space may be left open. Besides these, there are performance tests of more paper and pencil. The most important, I think, is what is known as Portius Maze tests. I have the privilege of having given these tests along with others to some children. Healey form board and these maze tests throw a flood of light on the inner nature of one's mental functioning. The remarks which I made about two brothers just after each of them completed the maze test are interesting to know.

The elder brother, age $12\frac{1}{2}$, took six trials in the last test for 14 years old child, five in the test for 12 years old, behaved in the following manner :—

"The first boy started with a quicker muscular speed; became nervous, and crossed the lines with his pencil while going through the paths; required a number of warning to take his pencil right through the direct paths; emotional disturbance present; the more often he missed the right course, the more perplexed he became."

The younger brother of ten years took one trial throughout, though the time taken was greater in this second case. I cite here the remarks I passed :—

"The second boy, aged $10\frac{1}{2}$, did his work with a calm, serious and sustained attention. He was not disturbed by any emotional excitement. He seems to possess the capacity to arrange the complex situation with perfect ease."

We must remember that until the Great World War, no "pronounced call for group tests," was felt. Following the declaration of America's participation in the war against Germany the American psychological association offered their services for devising a number of psychological tests which were ultimately applied to two million men in the American army. Two types of group tests were designed—(i) Alpha Test; and (ii) Beta Test. After signing the Armistice, the Alpha test were made public and applied to students in different schools and colleges. They proved very useful and encouraged psychologists to construct a great number of group tests of the verbal and non-verbal type. Since the inauguration of these tests thousands of students, male and female, employees and others, have been tested with a perfect accuracy and in short time.

Here a few important points must be noted with reference to these tests in the words of Prof. Stephen S. Colvin. "Nature is more important than nurture," says he, "in explaining individual differences where the nurture has been similar for the group concerned. On the other hand, it would be equally true that nurture would be more important than nature in explaining individual differences if the native equipment of a group were substantially different." The fundamental assumption of these tests in the words of the same person just cited is that, "we measure the innate intelligence in relation to the acquired intelligence and we infer from differences in acquired intelligence the differences in native endowment when we compare individuals in a group who have had common experiences and note the differences in the attainment of these individuals." If we examine with a close inspection, we will find that all these tests, implicitly or explicitly, are constructed on the same principle.

Besides the fact that a valid test must be based on the assumption of common experience, it must take into consideration "common interest," as well. It will be a fatal attempt to determine the curve of intelligence of a certain individual, if he has not had a reasonable amount of experience or opportunity to "learn the principles which the test involves." The subject is expected to have responded to such situations with a fair amount of interest. Thus to be on our guard we must not readily apply the same tests to boys which work in the female sphere. Their interests vary as widely as the two sexes themselves;

though some tests may overlap the two spheres as some physical and physiological elements do.

Another side-issue of these intelligence tests is that they do not test only the learning or the scholastic capacity of the subject, but also other phases of mental life, which are some of the basic factors of one's success or failure throughout. These are character and temperament tests. The former are quite insufficient if we neglect the latter. It is an undisputed fact that the success of a child in his school depends on his intellectual endowments only in part. "His character and temperament," to quote Prof. Colvin, "are likewise important factors in his success or failure. Will-to-do a task bulks large in the total school performance."

Great studies are being undertaken so as to determine will and temperament phases independent of intelligence tests. Prof. June E. Downey's "Will-profile Experiment," is the first extensive attempt of character tests.

Next in importance comes the concrete investigations of P. F. Voelker, "who attempted to find trustworthiness of boys in actual life situations." He has attempted to scale the "tendency to exaggerate suggestibility, willingness to receive help when such help is forbidden, punctuality in returning a borrowed object according to a promise, honesty in money matters, as indicated by whether the boy will keep some change given to him in purchasing an article, willingness to accept a tip, his truthfulness under various conditions and so on." It is interesting to note that Dr. Voelker found that the Intellectual endowment and character traits are independent of each other, and the latter were greatly influenced by "Instruction and Environment."

Having presented in a brief form the history and nature of these tests it might prove helpful to state a few directions to be noted for the right administration of them.

Various suggestions have been offered by different experts of psychological measurement. For an example, in the opinion of Drs. Bronner and Hildreth, the following may be noted :—

1. Provision for the right surrounding.

Now under this one head the psychological expert must consider the "lighting conditions, ventilation, seating arrangements, observance of rest periods, freedom on

the part of the child from bodily discomforts. Examination should not be given at recess, after school, or during gymnasium periods when the pupils might be disappointed at missing an interesting activity."

2. Controlling the subject and establishing rapport so as to get the best response.
3. Correct administering and scoring of the tests; accuracy and uniformity in giving directions; sufficient familiarity with the tests so as not to have to distract and delay the examinee.
4. Knowledge of how and when to modify the test according to sudden and unforeseen emergencies as they arise.
5. Stopping the examination when the subject is fatigued.
6. Use of correct chronological age in comparing results.
7. Refusing admission to examination to all persons except the one being examined.
8. Withholding the actual results of examination from the individual examined.
9. Avoiding the recording of the responses in the presence of the subject.

For successful outcome from the use of standardized tests the following points are worthy of notice in the opinion of Dr. Hildreth:—

1. There should be a real purpose of the application of tests, and it should be formulated at the outset.
2. The psychologist or the examiner must be able to obtain "the fullest cooperation of all concerned."
3. The choice of suitable and appropriate tests is of great importance.
4. The results obtained should be statistically treated, and presented so as to reveal significant outcomes.
5. The test should correctly be administered and scored by trained persons.
6. A testing programme is rarely worth the time, effort and money expended, if it does not result in some worth-

while modification in classroom procedures and practices, materials and methods of instruction, class and school organization and managements.

The criteria for the right selection of tests must be kept in mind always. Validity and reliability of a test are the first two important conditions. This includes "the suitable scaling and proper construction of the tests, and in case of achievement tests, the suitability or relevancy in view of the prevailing curriculum." Ease of administering and scoring, consistency with the psychological point of view, consideration of the length of time, the degree of differentiation which the test indicates between various levels of achievement and ability to learn, are indispensable factors for a standard test of psychological measurement.

The readjustment following testing programmes is of an importance which India has not yet dreamt of, but it is a thing of value which the western educational institutions have recognized which, with the help of regulations, are daily increasing its practical utility in school, administrative and industrial plants.

Before concluding the paper, let me state the general scope of psychological measurements in administrative sphere, vocational guidance and personnel placement. I shall refer to a statement which I have framed in connection with my research problem of vocational guidance for the post-matric students of the Panjab Province.* To take the administrative sphere first, the psychological measurements help us in the following :—

1. Right man in the right place.

This will prove the only fair and acceptable solution of the grievances and discontent of different individuals as regards the government services, both in the British India and the Indian States. The psychological test expert can devise various tests according to the requirements for some particular jobs and select the best ones out of the whole lot of the applicants.

2. In case of financial breakdown the retrenchment committees can announce their decisions objectively, *i.e.*, retaining

* Reference to my thesis which was a part of my course for M.A. (Psychology) examination.

those who are the most efficient, and dismissing those who are relatively deficient in the abilities required for the particular job they retain.

Regarding the vocational guidance and personnel placement these tests are of the following service to an expert :—

1. Selecting the best personnel for the available posts, to secure the greatest output in the factory.
2. Guiding the youths towards vocations for which they are best suited by nature and training.
3. Establishing and standardizing objective and unbiased tests to work satisfactorily under all the Indian conditions.

To refer to a recent Act passed by the Panjab Legislative Council which recommends the establishment of the Public Service Commission Department under the new constitution which is to be given to India. The function of this department will be to select and appoint government servants of the rank and file, irrespective of party prejudice and communal bias. This body will be non-sectarian in its character. I feel that it is imperative on the part of the Government to make provision for the services of some expert psychologist in the field of personnel selection and appointment to advise this commission if it is to fulfil its aims. (It may be noted that the Government of India Act, 1935, provides for the Public Service Commissions both at the Centre and in the Provinces.)

In my concluding remarks I would state that upto now India has barely touched this field. Some attempts have been made but compared with the magnitude of the task and the needs of the country these attempts are of little value and significance. We need to devise new tests, which suit the Indian conditions, whether physical or mental, social or political, in the widest possible sense of these terms. To create enough of opportunities and facilities for new vocations and new pursuits, we shall have to study in what abilities are required for different jobs and professions, which India had failed so far to learn from the West. We require to direct the growing stores of mental energy towards their right adjustments which are the sources of advance and progress in the field of science, art, commerce, agriculture, and other pursuits of knowledge and truth. This is not an easy

task. Merely talking and theorizing will not do. Funds must be placed at the disposal of research students who will study the different institutions where psychological guidance is given in foreign countries. Here is an unlimited field of research which has hardly been tapped. The results obtained through such investigations will not be barren abstractions, but will have a close bearing upon human life and human happiness. Such study of human nature, of its abilities and capacities appears to us to be the first essential of any reform which aims at the betterment of the existing system of education.

PLATO'S SYSTEM OF EDUCATION

By MR. RAZAUDDIN AHMAD, B.A., B.T.

Plato was a rationalist, and as such, he enunciated his principles of education on a rationalistic basis. He had full regard for the spirit of Athens. He saw no reason why he should be carried away by the traditional principles of Spartan education.

Boyd has rightly criticized Xenophon for laying undue emphasis on the Spartan principles and methods of education, in spite of being a disciple of Socrates, whose trial and death had taken place because he had openly broken away from time-honoured traditions. Xenophon's weakness lies in going back to Sparta and forgetting that he had to move in the society in Athens.

Plato's originality lies in devising a novel plan of education in Athens and reconciling the new device with the ancient spirit of Sparta, which was not looked down upon by him. Indeed, as we see in the Republic, the class of the warriors must be Spartan in spirit. But, while in Sparta everybody was expected to be a warrior, irrespective of his natural fitness for the military career, in the Republic of Plato only those courageous people could become warriors who were naturally fit for it; otherwise one might be an obedient artisan or a wise philosopher-king. Society would not look down upon one, if one performed one's duties properly.

This emphasis on the natural fitness of an individual for discharging his civil or military duties in the State is the very backbone of Plato's system of education. It implies the principle of individuality, on which great stress has been laid by Rousseau, Pestalozzi, Froebel, and other pioneers in the realm of education in modern times. We must understand the individual, whom we are going to educate. We must know what his age is, what his natural bent of mind is, what is that in which he is interested, and what his mind and body are capable of learning. Given all the data in this order, it is easy to find out whether he would be a king or a soldier or an artisan. In judging the worth of an individual we can foresee his career as it is likely to be and give the right sort of training he is capable of. In this respect, therefore, Plato may be credited with having a vision of a society which does not submerge the individual in it without estimating the value of his personality. In fact, though an ancient, Plato was a forerunner of modern education.

The principle of individuality is not, however, carried to its logical conclusion in Plato. After all the individual is a man; and man is naturally political. Hence the need of the State. The State is thus established for the individual. Now as a universal organization, it must have a community of interest, a common ideal for the realization of which the individual citizen would work and participate in the activities of the State. Plato clearly says that this ideal is "Justice;" it is the virtue of the State as a whole. As for the virtues of the different classes of the State, he says that "Wisdom" is the virtue of the "Philosopher-Kings," "Courage" is the virtue of the "Warriors," and "Obedience" that of the "Artisans." This classification of virtues is important and it determines the duties and obligations of the particular individuals of the particular classes. Plato thus does not take a legalistic view of morality. He believes that there is an end of morality: it is "Justice;" it is realized by the philosopher-kings by means of wisdom, by the warriors by means of courage, by the artisans by means of obedience.

The Socratic doctrine that virtue is knowledge, would be interpreted by Plato in this way:—There is an end of morality: the Good. This is the supreme virtue. Now the realization of this ideal of life anticipates that the moral agent must be conscious of the duties

he has to perform for this purpose, and he should do so deliberately. The political structure of the Republic is based on the assumptions that are implicit in this interpretation of the famous Socratic dictum.

There are two different kinds of knowledge, according to Plato. The first is "Reflection," the second is "Opinion." The first kind of knowledge is possessed by the philosopher-kings only. The second kind of knowledge is possessed by the warriors and the artisans, who are intellectually inferior to the philosopher-kings.

Plato's view of formal and informal education is important. Plato thinks that the family is not the proper informal educative agency. According to him, it is the business of the State to look after the education of its people. Now the State would take a vocational view of education; that is to say, it would take for granted that all education is vocational. In the scheme of Plato there is ample opportunity for vocational training. As a matter of fact, all the three classes of the State are to be trained for a particular vocation. Thus we find that Plato's idea of education is quite clear and distinct. It is not confused by the ambiguous ideals of liberal education, culture, or preparation for life.

It is necessary to scrutinize the psychological principles which underly Plato's system of education. Plato divided mind into three parts: (1) Appetite, (2) Courage and Pugnacity, and (3) Intellect. He considered appetite to be the lowest element. It was capable of taming only. The second element could be developed with a view to make a man a soldier. This development could be brought about by instructions in gymnastics. The highest part, according to Plato, was the Intellect. It was capable of the greatest mental development. It could make a man a philosopher-king.

It is easy to criticize Plato's psychological division of the mind in the light of Modern Psychology. Modern Psychology divides mental life, broadly speaking, into three aspects—cognition, affection, and conation. But it makes it clear that every mental state involves all the three aspects of cognition, affection, and conation, though one of the aspects is chiefly predominant.

Plato is primarily a rationalist. He has no regard for the affective or feeling aspect of mental life. He does not care for the emotional

development. This is why he assigns no place to the poets in the Republic. From this it does not follow that Plato is repugnant to all Fine Arts. Plato has much room for music. But it is not a class of musicians that he wants in his State. He uses music as a means to higher ends.

Plato's scheme of education was unpractical. He himself could not make it a success . . . Nor could anybody else. But a similar system of education of the classes of people prevails from the ancient times to this day in India, and it has proved quite efficient and practicable. The Hindu caste system makes a four-fold division of society into Brahmans, Kshatriyas, Vaishyas, and Shudras. While the Brahmans are the masters of learning, the Kshatriyas are the ruling and fighting class. The Vaishyas carry on trade and commerce; and the Shudras do the menial work.

Plato ought not to have entrusted the philosopher-kings with the two-fold responsibility of kingship and scholarship. The history of the world gives evidence of the fact that philosophers are unpractical idealists, who cannot be successful in the arena of politics. Philosophical rulers like James I of England, Joseph II of Austria, and Mohammad Bin Tughlaq of India devised good plans of administrations and conquests, but their lives were a failure, as they could not put their theories into practice. Great philosophers like Locke, Berkeley, Hume, Spinoza, and Kant would submit their resignations in the evening, if they were crowned in the morning, as they would find the world too ignorant to appreciate the ideals of their philosophies. On the contrary, great rulers like Alexander, Napoleon I, and Akbar had nothing to do with Philosophy, and yet they distinguished themselves in politics.

It logically follows from these instances that Plato failed to see the clear line of demarcation between government and philosophy, and he made a blunder by entrusting the key of government to a person, who might have thought it wise to doubt its very existence. Plato confused the idea of political wisdom with the idea of the wisdom of the learned man. He practically identified the two entirely different kinds of wisdom. There is a considerable difference between the wisdom of the statesman and the wisdom of the philosopher. Napoleon, for example, was not wise in the same sense in which Hegel was; and yet

both were wise. Napoleon's wisdom was political; Hegel's philosophical; and herein lies the great gulf between the two types of wisdom.

There is not much to be said against the system of education of the soldiers and the artisans. But the whole society would be doomed, if the first class were trained on the most unsound principles.

A PLEA FOR RURAL LITERATURE

By MR. SATYA PRAKASH, M.A., LL.B.

The history of rural education in India is a dismal tale. In spite of the increasing attention paid to this subject the condition of the rural masses continues to remain almost the same in respect of literacy year after year. Only eight per cent of the male and one per cent of the female population of the province was returned as literate in the last census report of 1931. One of the reasons for this slow progress is that numerous parents are being discouraged to send their children to schools because of the acute unemployment among the educated classes and idleness among them all around. They do not realise the importance of education for its own sake.

Moreover a large number of those who had some schooling relapse into illiteracy a few years after they have left school, for facilities in rural areas to keep alive the newly learnt art are sadly lacking. They thus miserably fail to demonstrate the utility of education to those who have had none. Truly has the Census Officer of 1921 remarked that "There is thus no motive for educating the boy who is destined for the plough; and it is unlikely that there ever will be till the people are given a vernacular literature worth the name."

It is true that in recent years there has been a great revival of vernacular literature and numerous books and series have been published both in Urdu and Hindi; but with most of the present-day writers the hobby is to give their work a literary garb and use a language which is full of Sanskrit and Persian words. Literary books have

their own place in the literature of the country but they can appeal to only a very small fraction of the country's population. There is a huge mass of semi-literate or half-educated people residing in rural areas who cannot avail of these books and their want remains unsatisfied.

The progress of adult education in rural areas is also being retarded for lack of a popular literature written in simple style. The following remarks of the Royal Commission on Agriculture on the importance of the subject may not be out of place :

“ Such a development would ante-date by at least a generation that great advance in literacy, which in our view, is essential to progress in all directions. Its influence in enlarging the scope of the cultivator's horizon and in increasing his willingness to adopt agricultural improvements and his capacity to watch over his interests in buying and selling commodities and produce would be immense A great obstacle to educational advance is presented by the apathy of the parents and no better method of overcoming this can be devised than by inducing them to realise in their own person the benefits of education.” (Page 530.)

In view of these remarks it will have to be conceded that in the interest of rural education as also of vernacular literature it is absolutely necessary that a series of suitable books should be brought out, and to my mind there is no institution more appropriate to take the matter up than the Hindustani Academy. No other province in India has the privilege of having such a competent body for the development of its vernacular literature and no other province is more backward in education than the United Provinces. Thus it is a very suitable topic for an equally appropriate body to take up, and sooner it is the better for all concerned.

1. The books that may be brought out under this series, which may be named “ *Gram Jiwan Mala* ” or “ *Dehati Mala* ” or “ *Gram Sudhar Series*,” should be *small in size*, for the rural mind, being unaccustomed to study, is apt to be frightened away by the size of a big volume as well as by the high price which the big volume will necessarily entail. Working in the glare of the sun, their eyesight is also not very keen,

nor can they afford to have sufficient light for reading at night; so *the print of these books has to be comparatively of a bold type. The language too is to be very simple Hindustani*—free from Persian and Sanskrit words—which may be readily intelligible to the villagers and can be written, without any change, both in Urdu and Hindi script. So far as possible *long and complex sentences may be avoided and the chapters in the books should not be too long to tire their patience out*, for it is unlikely that they may devote much time at one sitting.

2. As regards the *subject-matter* of these books the topics touched therein should be such as have an intimate bearing on the social, economic and ethical life of the people living in the villages. Apart from the technical subjects the study of which will be very useful for the villagers I would lay great emphasis on *short stories, rural dramas and rural novels* as well as on *religious topics more particularly on stories from scriptures*. Other topics that would be suitable in this series are given below :—

1. Better Farming, *i.e.*, improved methods of agriculture.
2. Elementary Rural Economics.
3. Civics.
4. Sanitation and Hygiene.
5. Travels and Adventure.
6. Short Biographies.
7. Cooperation.

The stories and dramas referred to above may deal with the evils of early marriage, the village moneylender and his vicious system, the evil consequences of dowry system, litigation, temperance, death and marriage expenses, the corruption at religious centres and so on.

THE BHASKARA SCHOOL OF VEDANTA

By DR. UMESHA MISRA, M.A., D.LITT.

1. Introduction

Puṣpadanta has struck the key-note of all the differences found in our philosophical systems regarding the nature of the Highest Truth, long before, in his famous verse¹—

त्रयी सांख्यं योगः पशुपतिमतं वैष्णवमिति
प्रमिन्ने प्रस्थाने परमिदमदः पथ्यमिति च ।
रुचीनां वैचित्र्याहजुर्कुटिलनानापथजुषां
दृष्टामेको गम्यस्त्वमसि पयसामर्णव इव ॥

(*Translation.* The three Vedās representing the eighteen branches of learning, Sāṅkhya, Yoga, Paṣupatimata, and Vaiṣṇava being the various lines of thinking, people, due to their divergent taste, consider one or the other to be the best; and consequently, take to the path of their own choice, whether the path be straight or winding, direct or indirect, for their approach. But O Īva ! You alone are to be approached by all, like the great ocean in the case of rivers.)

Accordingly, several theories have been propounded from time to time by the great thinkers of the country to solve the riddles of the universe. The result thereof is that we have at present Absolute Monism (*Advaita*), Qualified Monism (*Viśiṣṭādvaita*), Unqualified Monism (*Ādhyātmādvaita*), Monistic Dualism (*Dvaitādvaita*), and so on. Not only do these Monistic schools of Vedānta regard Upaniṣads as their basis of teachings, but also the dualistic ones. Later on, during the period of the systematization of the schools when the Vedāntic thoughts came to be grouped together in the Sūtra-form, almost all the Monistic systems developed their view-points further on the basis of these Sūtras, the nature of which is so elastic that every demand of these advocates of Monism was met with success.

From our studies of the Bādarāyaṇa or Vedānta Sūtras it is clear that there were at least seven old Vedāntins whose views on Vedānta were so important that they had to be incorporated in these Sūtras also. These ancient advocates of Vedānta also differ in their interpretation of the

¹ Mahimnaḥ Stotra, verse 7.

Vedāntic problems very widely. Of these, Ācmarathya² and Auḍulomin³ are of some importance here, as both of these are advocates of the *Bhedā-bhedavāda* with which the present paper is concerned. Both Ṣaṅkara and Vācaspati have explained the views of these Vedāntins in their respective works*.

Even a little later, in the pre-Ṣaṅkara days, there were several famous Vedāntins references to whom are found in several standard works. Yāmunaēārya, the teacher of Rāmānujācārya (about 1050 A.D.), refers to Shrivatsāṅka Mishra, Ācārya Taṅka, Bhartṛprapaṇca, Bhartṛmitra, Bhartṛhari, Brahmadatta, and Bhāskara in his Siddhitraya.⁴ He also refers to Draviḍācārya in the same work by the term 'Bhāṣyakṛt.'⁵ Ṣaṅkara also, it is believed, has referred to his views in his Bhāṣyas on Māṇḍūkya^{5A} and Brhadāranyaka⁶ Upaniṣads. Madhusūdana Sarasvatī in his commentary on Saṅkṣepačārīraka refers to one Brahmanandī.⁷ Rāmānuja in his Vedārthasaṅgraha⁸ refers to Bhāruci, Bodhāyana, Guhadeva and Kapardika, along with others. Bhāskara has also mentioned the name of Upavarṣa in his Bhāṣya which indicates that the latter also wrote a

² Bādarāyaṇa Sūtra, I. ii. 29 ; I. iv. 20.

³ Ibid., I. iv. 21 ; III. iv. 45 ; IV. iv. 6.

*(a) आत्ममध्यस्थ तु यद्यपि जीवस्य परस्मादनन्यत्वमभिप्रेतं तथापि प्रतिज्ञालिङ्गेति सापेक्षत्वाभिधानात् कार्यकारणभावः कियानप्यभिप्रेत इति गम्यते । औदुलोमिपक्षे पुनः स्पष्टमेवाऽवस्थान्तरापेक्षौ भेदाभेदौ गम्यन्ते—Ṣaṅkara on BS. I. iv. 22.

(b) आत्यन्तिके सत्यभेदे कार्यकारणभावाभावादनात्यन्तिकोऽभेद आस्थेयः; तथा च कथञ्चित् भेदोऽपीति तमास्थाय कार्यकारणभाव इति—Bhāmatī on Ibid.

(c) जीवो हि परमात्मनोऽत्यन्तं भिन्न एव सन् देहेन्द्रियमनोबुद्ध्युपधानसम्पर्कात् सर्वदा क्लृप्तः । तस्य च ज्ञानध्यानादिसाधनानुष्ठानात् सम्प्रसन्नस्य देहेन्द्रियादिसङ्घातात् उत्क्रमिष्यतः परमात्मनैक्योपपन्नेरिदमभेदेनोपक्रमणम् । एतदुक्तं भवति-भविष्यन्तमभेदमुपादाय भेदकालेऽपि अभेद उक्तः । यथाऽहुः पाञ्चरात्रिकाः —

आमुक्तेर्भेद एव स्यात् जीवस्य च परस्य च ।

मुक्तस्य च न भेदोऽस्ति भेदेहेतोरभावतः ॥—Bhāmatī on Ṣaṅkara-

Bhāṣya on BS. I. iv. 21.

⁴ Pages 5-6.

⁵ Page 5.

^{5A} Introduction to the Hindi Translation of Ratnaprabhā by MM. Gopinatha Kavirāja, p. 16, Published in the "Achyuta," Benares.

⁶ Ibid.

⁷ छान्दोग्यवाक्यकारेण ब्रह्मनन्दिनाऽपि etc.—III. 217.

⁸ Page 154.

commentary on Vedānta.⁹ There was also another old Vedāntin, named Sundarapāṇḍya, from whose work Ṣaṅkara quotes in his Brahmasūtra-Bhāṣya.¹⁰ Of these, again, Bhartṛprapañca was an advocate of the *Bhedābheda* and the *Jñānakarmasamuccayavāda*.¹¹ Brahmadatta, also like the former was an exponent of *Jñānakarmasamuccayavāda*.¹² Thus, it is clear that, in olden times, also these theories were held by eminent Vedāntins. Later on, Ṣaṅkara and his followers through the teachings of *Advaita* created entirely a new philosophical atmosphere in the country whereby almost all other schools of thought became idle for some time. But the condition did not remain unchanged for long.

Not long after this, either during the very lifetime of Ṣaṅkara or just after him, the old theories of *Bhedābheda* and *Samuccaya* came to be revived with Bhāskara as their exponent. When and where this Bhāskara flourished is not yet certain. But we find that several old writers on Vedānta have freely referred to his views. Some of these references are given below.

2. References to Bhāskara

The earliest reference of this Bhāskara is found in a work, named, *Vijñānadīpikā-vivṛtti*,¹³ a commentary on *Vijñānadīpikā*, both of which are attributed to Padmapāda,¹⁴ one of the pupils of Ṣaṅkara. It is still

⁹ अत एवोपवर्षाचार्येणोक्तं प्रथमपादे—आत्मवादं तु शरीरके वक्ष्यामः —

Bhāskara-Bhāṣya on BS. I. i. 1. p. 6.

¹⁰ I. i. 4; Introduction to the Hindi Translation of Ratnaprabhā by MM. Kavirāja pp. 17-18.

¹¹ ननु अनेकात्मकं ब्रह्म, यथा वृक्षोऽनेकशाख एवमनेकशक्तिप्रवृत्तियुक्तं ब्रह्म । अत एकत्वं नानात्वं चोभयमपि सत्यमेव । यथा वृक्ष एत्येकत्वं, शाखा इति नानात्वं, यथा च समुद्रात्मनैकत्वं फेनतरङ्गाद्यात्मना नानात्वं, यथा च मृदात्मनैकत्वं घटशरावाद्यात्मना नानात्वम् । तत्रैकत्वेनांशेन ज्ञानान्मोक्षव्यवहारः सेत्स्यति, नानात्वांशेन तु कर्मकाण्डाश्रयौ लौकिकवैदिकव्यवहारौ सेत्स्यत इति । एवं च मृदाविद्वष्टान्ता अनुरूपा भविष्यन्तीति—Ṣaṅkara-Bhāṣya on BS. II. i. 14. Bhāmatikāra attributes this view to the अनेकान्तवादी which is a term used for Bhartṛprapañca's view. In several places Sureśvara refers to his views in his *Bṛhadāraṇyakopaniṣad-Vārttika*.

¹² Vide MM. Kavirāja's Introduction, p. 15.

¹³ यावज्जन्म तावद्विषयासक्तिः यावद्विषयानुरागः तावत्कर्मप्रवृत्तिः । तस्मात् यथा जन्म न स्यात् तथा प्रयतेति भास्करादयो वदन्ति—On *Vijñānadīpikā*, Verse 14. A MS. belonging to the writer.

¹⁴ (a) श्रीभगवत्कृपोपस्थितवेदान्तसिद्धान्तविदाचार्यशिरोमणि श्रीभगवदवतारभगवच्छङ्कराचार्यवरणा-
नुग्रहविज्ञानपरापरात्मतत्त्वः श्रीपद्मपादाचार्यस्तत्त्वानुसन्धानसत्तणं मङ्गलं शिष्योपशिष्यशिक्षायै कर्तव्य-
सत्प्रकरणोपक्रमे निबध्नाति—Introduction to the first verse.

not quite certain when the Great Ćaṅkara lived. But the majority of modern scholars think that he was born in A.D. 788 and passed away in A.D. 820, at the age of 32; so that Padmapāda also might be placed somewhere about that very period, that is, in the beginning of the ninth century A.D.

Next, we find Vācaspati Mishra quoting from the Bhāṣya of Bhāskara in several places in his Bhāmatī.¹⁵ Vācaspati is placed in 841 A.D. Udayana (984 A.D.), not only refers to his *Brahma-Parīṇāmavāda*, but also mentions his name.¹⁶ Yāmunācārya (11th century) also mentions him as one of the old Vedāntins.¹⁷ Ćitsukha (13th century) refutes his *Samuccaya* theory according to the interpretation of Pratyagrūpa-Bhagavan.¹⁸ Vardhamāna, son of Gaṅgesha Upādhyāya (14th century), speaks of Bhāskara as the *Bhāṣyakāra* of the *Tridandīmata*.¹⁹ Vidyāranya (14th century) also refers to his views in his *Vivaraṇa-prameyasaṅgraha*.²⁰ Sadānanda Yati of Kashmir (15th century) refutes Bhāskara's views on the *Bhedābheda*.²¹ Bhaṭṭojī Dīkṣita (17th century) speaks of Bhāskara as the upholder of the *Bhedābheda*.²² Baladeva Vidyābhūṣaṇa (18th century) also, like his predecessors, refutes Bhāskara's *Bhedābheda* theory.²³ Besides all these, it is believed amongst the Sanskritists that the criticism of *Samuccayavāda* by Ćaṅkara as found in his *Gitā-Bhāṣya*, Chapter II, is really an attack on Bhāskara's

(b) इति श्रीशङ्कराचार्यप्रियशिष्ययतीश्वरपद्मपादाचार्यविरचितविज्ञानदीपिकाविवृतिः समाप्ता—
colophon.

¹⁵ III. iii. 28 and 29. Upon which the Kalpataru remarks 'भास्करमतमनुवदति'; 'इति श्रुतिर्भास्करोदाहृता'; 'भास्करमतमाह' ।

¹⁶ ब्रह्मपरिणतेरिति भास्करगोत्रे युज्यते—Kusumāñjali, II. 3. p. 332. Bibliotheca Indica Edition.

¹⁷ Siddhitrāya, p. 6.

¹⁸ Tattvapradīpikā, pp. 340—348. Upon which Bhagavan remarks 'इति भास्कर-दुस्वगारोऽपि चिकित्सितः', p. 340.

¹⁹ 'त्रिदण्डमत भाष्यकारः'—Prakāṣa on Kusumāñjali, II. 3, p. 332.

²⁰ 'यस्तु भास्करः' etc., p. 164.

²¹ Advaita-Brahmasiddhi, pp. 130-31. Calcutta University Publication.

²² Vedānta-tattva vivekaṭīkāvivaraṇa, referred to by Prajñānānanda in his History of Vedānta, Vol. I, p. 300.

²³ Siddhāntaratna, pp. 344—46, Princess of Wales Sarasvatibhāṣana Text Series, Benares, Edition.

Samuccayavāda. But except this belief there is no other proof to support this view.

3. Date and life of Bhāskara

From these various references it appears that Bhāskara was either a contemporary of Ṣaṅkara or lived just after him. He may be, therefore, placed some time in the early days of the ninth century.

Nothing is definitely known about his family history. Some are of opinion that he lived somewhere near the Sabya Mt., in a village, named Vijjāda-Biḍa, and that he belonged to that family of which the great astronomer of the same name was the sixth in generation.²⁴ We cannot be quite sure of this, for we know that there were so many scholars in ancient India who had 'Bhāskara' added to their names.

4. Sampradāya of Bhāskara

It is said that Bhāskara belonged to the *Tridandī* school of Vedāntins. Vedāntins like Ṭaṅka, Draviḍa, Guhadeva, Bhāruci, Yāmunācārya, and the followers of Rāmānuja school all belonged to this *Sampradāya*. It may be assumed from this that perhaps the *Tridandī* class was a section of the Vaiṣṇavites. MM. Gopinatha Kaviraj also holds a similar view and says, "The Vaiṣṇavas are probably *Pāñcharātras*, *Bhāgavatas* and *Tridandīns*."²⁵ This is perhaps due to this very fact that Bhāskara has sympathy with these Pāñcarātrikas and quotes their views in his *Bhāṣya* with appreciation.²⁶

5. His work

The only work of his known to us is his *Bhāṣya* on the Bādarāyaṇa Sūtra which, it is said, has been written after the *Tridandī-Sampradāya*. In this very *Bhāṣya* he says ²⁷ 'छान्दोग्ये चायमेवार्थोऽस्माभिः प्रदर्शितः', from which it may be assumed that he also wrote on *Chāndogya*.

²⁴ Dr. Bhāudaji's Copper Plates.

²⁵ Princess of Wales Saraswatibhavana Studies, Vol. II, p. 177.

²⁶ II, ii, 41; III, iv, 26.

²⁷ III, i, 8.

In this Bhāṣya, we find references to संवर्त,²⁸ उपवर्ष,²⁹ मायावादी,³⁰ सनत्कुमार,³¹ वैयाकरणदर्शन,³² सांख्य, वृत्तिकार of मीमांसा,³³ योगशास्त्र,³⁴ कपिल as the author of षष्ठितन्त्र,³⁵ स्फोटवाद,³⁶ refuted, सनक a Yogin quoted,³⁷ सांख्यकारिका quoted,³⁸ मीमांसकाः,³⁹ न्यायसूत्र quoted,⁴⁰ याज्ञवल्क्य quoted,⁴¹ मनुस्मृति quoted,⁴² व्यास quoted,⁴³ इतिहास quoted,⁴⁴ योगाचार्यसौत्रान्तिक views referred to,⁴⁵ quotes Kārikās from विप्रभिन्नु,⁴⁶ पांचरात्रिकाः,⁴⁷ वेदवाह्याः वैशेषिकाः,⁴⁸ व्यासादयः,⁴⁹ पौराणिकाः,⁵⁰ दिगम्बरसिद्धान्तः,⁵¹ माहेश्वराः-पाशुपत-शैवकापालिक-कायकसिद्धान्तिनः,⁵² नैयायिक,⁵³ शैव,⁵⁴ श्वेताश्वतर,⁵⁵ अभावाद्भावोत्पत्तिवाद and प्रमाणशून्यवाद,⁵⁶ शून्यवादिन्,⁵⁷ वाक्यपदीय quoted,⁵⁸ वाक्यकार and वृत्तिकार.⁵⁹

²⁸ Bhāskara-Bhāṣya, p. 5.

²⁹ Ibid., p. 6.

³⁰ Ibid., I. ii. 6.

³¹ Ibid., I. iii. 8.

³² Ibid., I. iii. 10.

³³ Ibid., I. iii. 10.

³⁴ Ibid., I. iii. 27.

³⁵ Ibid., II. i. 1.

³⁶ Ibid., I. iii. 28.

³⁷ Ibid., p. 72.

³⁸ Ibid., p. 76.

³⁹ Ibid., II. i. 14.

⁴⁰ Ibid., II. ii. 1.

⁴¹ Ibid., III. ii. 16; III. iv. 39.

⁴² Ibid., III. iii. 28.

⁴³ Ibid., p. 209.

⁴⁴ Ibid., p. 213.

⁴⁵ Ibid., II. ii. 28.

⁴⁶ Ibid., II. ii. 28.

⁴⁷ Ibid., I. iv. 20.

⁴⁸ Ibid., pp. 244, 246-47.

⁴⁹ Ibid., p. 142.

⁵⁰ Ibid., p. 137.

⁵¹ Ibid., II. ii. 36.

⁵² Ibid., II. ii. 37.

⁵³ Ibid., p. 127.

⁵⁴ Ibid., p. 127.

⁵⁵ Ibid., I. iv. 25.

⁵⁶ Ibid., II. i. 18.

⁵⁷ Ibid., II. ii. 18.

⁵⁸ Ibid., I. iii. 29.

⁵⁹ Ibid., I. iv. 25.

6. Standpoint of Bhāskara

As Bhāskara wrote his Bhāṣya mainly to support his *Brahma-Parināma-Vāda* and *Karma Samuccaya-Vāda*, he had to arrange the Bādarāyaṇa Sūtras accordingly. This is, perhaps, the reason why among the Sanskritists there is the belief that Bhāskara wrote his Bhāṣya mainly to attack Ṣaṅkara's Bhāṣya on Bādarāyaṇa Sūtra, for Ṣaṅkara was one of the greatest enemies of the two theories upheld by Bhāskara. In support of their belief they refer to the very first verse of Bhāskara's Bhāṣya, the purport of which is that this Bhāṣya is being written with a view to criticise the commentary of those who, having concealed the real significance of the Sūtras, have explained them according to their own viewpoint.⁶⁰ It is because of his hatred towards Ṣaṅkara that he speaks of him as 'विगीतं विच्छिन्नमूलं महायानिकबौद्धगाथितं मायावादं व्यावर्णयन्तो लोकान् व्यामोहयन्ति';⁶¹ and, again, 'ये तु बौद्धमतावलम्बिनो मायावादिनस्तेऽप्यनेन न्यायेन सूत्रकारेणैव निरस्ता वेदितव्याः'.⁶² Hence, it is natural to find differences in the version of the Sūtras according to Bhāskara also. The differences in the Sūtras are pointed out in an appendix attached to this paper.

It is desirable to mention at the very outset that according to Bhāskara the highest aim can be achieved not alone by the true knowledge (*vidyā*), but both by true knowledge and practising of *karman*. Both are essential for attaining final liberation; and according to Bhāskara, this is exactly what the author of the Vedānta-Sūtra had in view.⁶³ Another equally important aspect of his philosophy is that the individual self (*Jīva*) is different from the Absolute *Paramātman* as long as the former is in the *Samsāra*, that is, in bondage; but as soon as it becomes liberated, it becomes one with the *Paramātman*. Thus, the *Jīva* is both different from and also identical with the *Paramātman*. This is what Bhāskara calls *Bhedābheda*. With these two theories in his mind, Bhāskara interprets the Bādarāyaṇa Sūtras to suit his own angle of vision. An attempt is made here to put forth the views of Bhāskara on the various philosophical problems under certain definite heads.

⁶⁰ सूत्राभिप्रायसंवृत्त्या स्वाभिप्रायप्रकाशनात् ।

व्याख्यातं यैर्दि शास्त्रं व्याख्येयं तन्निवृत्तये ॥—Ibid., p. 1.

⁶¹ Ibid., I. iv. 25.

⁶² Ibid., II. ii. 29.

⁶³ अत्र हि ज्ञानसमुच्चयान्मोक्षप्राप्तिः सूत्रकारस्याभिप्रेता, Ibid., p. 2.

7. Conception of Brahman

In fact, according to Bhāskara, there is only one *tattva*, and it is *Brahman*. *Brahman* has been explained after the root 'Bṛmha' meaning greater than which there is nothing. He is also called *Paramātmān* and *Içvara*.⁶⁴ This *Içvara* can be known through the *Āgama-Pramāṇa* alone, that is, through the *Ūrutis* which describe him as *Sat*, one without a second, and existing before (the creation).⁶⁵ He is the Primordial Cause of this universe (*upādāna-kāraṇa*). But as Bhāskara believes in the *Satkārya-Vāda*, the term '*Brahman*' is also sometimes used for the created *Prapañca*, in its secondary sense.⁶⁶ It is for this very reason that Bhāskara adds the terms *kārya* and *kāraṇa* to *Brahman*; the former, that is, *kārya-Brahman* is used for the creation while *kāraṇa-Brahman* for *Içvara*.*

Being the material cause of the universe, he has been described as omniscient, omnipotent, and the ultimate cause of the creation, destruction and existence of the universe.

He is omnipresent.⁶⁷ He is also pure consciousness itself (*bodha-svarūpa*).⁶⁸ He is Perfect Bliss and can have no nescience (*avidyā*).⁶⁹ *vidyā* or *jñāna* is his own natural *sva-rūpa*.⁷⁰ Bhāskara believes that *dharma* and *dharmin* or quality and substance are quite inseparable, and hence, the attributes of *satya*, *jñāna* and *ananta* are not considered to be different from their *dharmin-Brahman*.⁷¹ It is he who keeps control over all the *bhūtas* through his inconceivable (*acintya*) powers.⁷² He is realized by yogins through their pure *Manas* in deep meditation due to which he is said to be as *Manomaya*.⁷³

He has been described as the material cause of the universe; and through his inconceivable and extraordinary powers he manifests himself

⁶⁴ Ibid., pp. 6-7.

⁶⁵ Ibid., p. 9.

⁶⁶ Ibid., p. 7.

* 'सर्वज्ञं ब्रह्म जगतः कारणम् । तत् कारणात्मना कार्यात्मना द्विधाऽवस्थितम्—Bhāskara-Bhāṣya, I. i. 11.

⁶⁷ Ibid., I. ii. 11; IV. iii. 13.

⁶⁸ Ibid., III. ii. 6.

⁶⁹ Ibid., I. i. 4, 12.

⁷⁰ Ibid., I. ii. 6.

⁷¹ Ibid., III. ii. 22.

⁷² Ibid., I. ii. 18.

⁷³ Ibid., p. 169; I. ii. 1.

in the form of the universe (*prapañca*).⁷⁴ In manifesting himself he does not require the help of anything. It is his very nature to manifest in the form of the universe, like the natural flow of milk from the udders of a cow.⁷⁵ It should also be pointed out that in manifesting he does not exhaust his energy like an individual self. The only illustration possible from the material world is that of a spider which goes on and on weaving threads without any exhaustion.⁷⁶ It should also be remembered that while manifesting himself, in the form of the universe, the *prapañca* (universe) assumes his form, but the *Paramātman* does not assume the form of the *prapañca*.⁷⁷ Thus, he is the substrate of all the modifications (*vikāras*).⁷⁸

He possesses natural *jñāna* (consciousness), strength (*bala*) and movement (*kriyā*). There is none to lord over him and none to manifest him. He is, undoubtedly, the primordial cause of everything.⁷⁹ Whatever he desires is ever fulfilled (सत्यसंकल्प),⁸⁰ and he is also ever *आप्तकाम*.

The above description of *Brahman* shows that he is, undoubtedly, without any desire for himself, and naturally, he should have also no desire nor any activity even for the creation or his own manifestation.⁸¹ In reply to this, it is said that it is not to fulfil his own desires that he manifests, but it is simply for the sake of his *līlā*, which has been described

⁷⁴ (a) 'आत्मा स्वयमात्मानं कार्यत्वेन परिणमयामास'—Ibid., I. iv. 25; (b) 'स हि स्वेच्छया स्वात्मानं लोकहितार्थं परिणामयन् स्वशक्त्यनुसारेणं परिणामयति । तथा च श्रुतिः आत्मन आकाशः सम्भूतः etc., Ibid., II. i. 14, p. 97.

⁷⁵ परिणामस्वाभाव्यात् क्षीरवत् सर्वज्ञत्वाच्च सर्वशक्तित्वाच्च स्वेच्छया परिणामभेदात्मानमिति शक्यते वक्तुम्—Ibid., II. i. 94, p. 96.

⁷⁶ 'अप्रच्युतस्वरूपस्य शक्तिविज्ञेयलक्षणः । परिणामो यथा तन्तुनाभस्य पटतन्तुवत्'—Ibid., II. i. 14, p. 96; II. i. 27.

⁷⁷ प्रपञ्चस्य ब्रह्मात्मता, न प्रपञ्चरूपता ब्रह्मणः'—Ibid., III. ii. 13; p. 166.

⁷⁸ Ibid., I. iii. 4.

⁷⁹ 'स्वाभाविकी ज्ञानबलक्रिया च ॥

न तस्य कश्चित् पतिरस्ति लोके ।

न वेदिता नैव च तस्य लिङ्गम् ॥

स कारणं कारणाधिपधिपो

न चास्य कश्चिज्जनितः न चाधिपः'—Quoted for Cvetāçvatara, Ibid., II. i. 14. p. 98.

⁸⁰ Ibid., I. ii. 2. 'संकल्पमात्रेणानेकधा भाव' दर्शयित्वोपसंहरति—Ibid., II. i. 14, p. 97.

⁸¹ Ibid., II. i. 32.

to be the sportive activity of God.⁸² Besides, by his manifestation he does also good to the created beings with the help of their own deeds of the past,⁸³ which are responsible for the differences in their condition. What God does is only to help their fructification without being himself influenced by any of their deeds.⁸⁴ It is also not quite correct to think that god manifests himself simply for doing good to the created beings; for he does so by his very nature, just as, milk modifies itself into curd, or water into ice, or *Devas* do several activities without any external influence, and so on.⁸⁵ *Brahman* is found in three distinct forms—(1) as a cause, (2) as an effect or modification in the form of universe, and (3) as *Jiva*.⁸⁶ The second manifestation (*pariṇāma*) is called his *Bhogyā-Śakti* which exists in the form of *Ākāśa*, etc. which are all non-conscious; while the third is named as his *Bhoktr-Śakti* and is the conscious *Jiva*.⁸⁷ Thus, *Brahman* himself is said to be the *karana*, the *kāraya* and also the *kartr*. He is the *karana*, because he himself is the instrument of his own manifestation (*pariṇāma*). He is the doer, because he, alone, out of his own free will, is responsible for all these modifications. And as the modifications also are nothing but *Brahman* himself, he is also the effect.⁸⁸ During the creation, we find, *Brahman* both a *Bhoktr* (enjoyer) as *Jiva* and *Bhogyā* (the object of enjoyment) as the unconscious universe. The same *Paramātmān* takes everything back within himself during the period of dissolution (*pralaya*), like the sun who throws out its rays during the day but takes them back when it becomes dark.⁸⁹

(a) *Pariṇāma of Brahman*

Regarding the theory of *Pariṇāma* (modification or manifestation), Bhāskara holds that *Brahman*, who is partless (*niravayava*), alone, can modify

⁸² 'न तस्य प्रवृत्तौ प्रयोजनं किन्तु लीलाकैवल्यम्। स्वरसेन या क्रीडास्वरूपा चेष्टा सा लीला। तस्याः कैवल्यं केवलभावः। यथा लोके राजप्रभृतीनां परिपूर्णकामानामपि क्रीडार्थां प्रवृत्तिर्भवति तथेश्वर-स्यासकामस्यापि प्राणिकर्मपेक्षया सृष्टिप्रवृत्तिरुपपद्यते,—Ibid., II. i. 33.

⁸³ Ibid., II. i. 14' p. 97.

⁸⁴ Bhāskara—Bhāṣya, II. i. 34, p. 107.

⁸⁵ Ibid., II. i. 24-25, p. 104.

⁸⁶ ब्रह्म च कारणात्मना, कार्यात्मना, जीवात्मना च त्रिधाऽवस्थितम्—Ibid., I. i. 1; pp. 7-8.

⁸⁷ Ibid., II. I. 27, p. 105.

⁸⁸ Ibid., I. iv. 25.

⁸⁹ Ibid., II. i. 14, p. 97; II. i. 27, p. 105; I. iv. 25, p. 85.

himself. In fact, he adds, that there can be no modification of an object which has got parts. It is, therefore, that the modification of milk into curd is not due to the former's having parts, but to the very nature of it. If it were not so, then water also would have modified itself into curd. Moreover, he adds, if the capacity to modify (*pariṇāma-śakti*) be believed to belong to the parts then, as parts themselves have got their own parts which, again, have parts and so on, we would not reach to any definite conclusion (*vyavasthā*). Hence, it is concluded that only partless *Brahman* has got this capacity.⁹⁰ There are several *Ṛutis* to support the above view.⁹¹ By way of illustration Bhāskara points out that just as *Manas*, being partless, has its modifications in the form of desire, anger, avarice, stupidity, etc., which are quite different from one another and yet the *svarūpa* of *Manas* remains unchanged and unexhausted, so is the case with *Brahman*.⁹² But during all these changes *Brahman* keeps himself quite aloof.⁹³ Hence, *Brahman*, may be described to be both immanent and transcendental.

As regards the objections of the *Māyāvādins* that in the first place, there is no direct *Ṛuti* to prove the *Brahma-Pariṇāma* ; secondly, even then if it be so admitted, *Brahman* would become non-eternal, like milk, which is, again, against the *Ṛuti* which tells as that *Brahman* is eternal and all-pervasive ; and lastly, if *Brahman* alone becomes modified in the form of the entire *prapañca*, then as *prapañca* is directly perceived by all, *Brahman* would also be directly perceived by all and every-body would become liberated and then all the teachings of *Upaniṣads* would be useless, it is said that analogy should not be carried too far. Moreover, even in the material world every object has not got the same capacity ; as for instance, milk modifies itself into curd alone, but food changes into blood, hair, nail, tooth etc. which are all quite distinct from one another. And, again, in the case of living beings, it is found that a spider has threads

⁹⁰ 'कथं पुनः परिणामो निरवयवस्या काशकल्पस्येति चेत्—अत्रोच्यते । परिणामस्वाभाव्यात् क्षीरवत् सर्वज्ञत्वाच्च सर्वशक्तित्वाच्च स्वेच्छया परिणामयेदात्मानमिति शक्यते वक्तुम् । ननु सावयवत्वात् क्षीरस्य परिणामोपपत्तिः । उच्यते । न सावयवत्व' तत्र परिणतिहेतुः । यदि स्यात् अम्बुनोऽपि दधिभावेन परिणामः स्यात्' etc.—*Ibid.*, II. i. 14, p. 96.

⁹¹ *Ibid.*, pp. 69-97.

⁹² *Ibid.*, II. i. 14. p. 98.

⁹³ *Cf.* तथा च श्रुतिः—'आत्मन आकाशः सम्भूतः तत्तेजोऽसृजतेति' । वाऽचेतनं महाभूतं सृजति । स्वयं चेतनरूपेण पृथगेवावस्थितः etc.—*Ibid.*, II. i. 14, p. 97.

and can naturally weave a net out of those threads, while no other living creature can do so. So, it is not within the powers of any being to limit the capacity of any *bhāva* (object) ; for speculation fails there and the knowledge of similarity and dis-similarity proves helpless. Such being the case with ordinary objects and beings, what to speak of *Brahman* with his inconceivable, endless and never-failing capacities. Besides, he alone is omniscient and omnipresent, and enjoys full freedom in the true sense of the term. Hence, there is nothing to prevent *Brahman* from modifying himself into the form of the entire *prapañca* and manifesting his *līlā*.⁹⁴ This *Brahman*, being free from all sorts of *karman*, does not experience any pleasure or pain like the individual self.⁹⁵

Against the possible objection of the Sāṅkhya that if the universe be believed to be the modification of conscious *Brahman* then there is no scope for the Sāṅkhya of Kapila as explained in his *Śaṣṭhitantra* and the Sāṅkhya-*Ārṇava*, it is pointed out that it is very essential for creation that its creator should be a conscious being. This is also supported by several *Ārṇava* and *Smṛti*s. Hence, the Sāṅkhya point of view which goes against the view that conscious being should be the creator, should not be accepted as correct.⁹⁶

Further, it is argued that if *Brahman* himself manifests as the *jīva-jagat*, how can then the latter be non-*cetana*. To this it is said, in reply, that no doubt, the entire modification of *Brahman* is conscious, but on account of the vast difference in the very degree of the manifestation of consciousness, it is not obvious in every evolute. Thus, in some we find manifested consciousness, as in the *jīvas*, while in others it is not at all manifested, as in stone, etc. That these stones etc. are quite different from living beings in nature is itself a proof of their being devoid of consciousness. It is also due to this itself that stones etc. have not got any freedom.⁹⁷ From this it appears that according to Bhāskara although full freedom belongs to *Brahman* alone, yet there is some freedom with the living beings also. Besides, Bhāskara also points out that the effect

⁹⁴ Ibid., II. i. 14, pp. 96-97.

⁹⁵ Ibid., I. ii. 8 ; II. iii. 46-47 ; pp. 141-42.

⁹⁶ Ibid., II. i. 1, pp. 87-88.

⁹⁷ केचिदभिप्रेक्ष्यते चैतन्याः केचिदभिप्रेक्ष्यते चैतन्याः । अत एव लोहादीनां चैतन्यास्तित्वे प्रमाणमस्ति etc.—Ibid., II. i. 4, p. 89,

or evolute may not wholly agree with the cause, as is also found in the case of the production of scorpion from clay and similar other products. So, in certain aspects, namely, सत्ता, अमूर्त्तत्व etc. there is similarity between the cause—*Brahman* and the effect *Ākāśa* etc.⁹⁸

It has been said above that the entire creation dissolves itself in *Brahman* during *pralaya*. Now, against this it is said that if it be accepted then the entire universe would also carry along with it all the various modifications (*vikāras*) into *Brahman* and pollute his pure nature with its own *dharma*s. To this Bhāskara points out that the universe while dissolving itself into *Brahman* gives up its modified form *vaikṛtarūpa* and becomes one with him, just as a tree, for instance, when destroyed into earth, does not carry along with it all its different forms ; or just as when a piece of solid and hard salt dissolves itself into water, then it does not carry its solidity etc. to water.⁹⁹

8. The Theory of Causality

It has been repeatedly said above that *Brahman* himself manifests into universe. This itself shows that essentially there is no difference between *Brahman* and the *prapañca*. *Prapañca*, on the other hand, as a particular form (धर्म) or state (अवस्था) of *Brahman*, is as much real as *Brahman*, its cause, is.¹⁰⁰ So Bhāskara believes that cause is identical with its effect ; and that the effect remains in its cause even before its manifestation. This is also supported by the fact that the entire creation merges itself into *Brahman* during *pralaya*. Thus, Bhāskara supports the theory of *satkārya*, like the Sāṅkhya. The other arguments in support of his theory are: Had cause been not identical with effect then cloth would not have been found only in threads or the pot in the clay and it could have been found elsewhere also like cow, horse, etc. It is, therefore, that a pot alone is produced out of clay and not curd or hare's horn, etc. If an object were not existing in its cause even before its manifestation, then there being no difference between its absence in the particular cause and elsewhere, the effect may be produced

⁹⁸ Ibid., II. i. 6, p. 90.

⁹⁹ 'ब्रह्माप्येति प्रपञ्चोऽयं रूपं हित्वा तु वैकृतम्।

जहाति कठिनावस्थां जलस्थं लवणं यथा' etc.—Ibid., II. i. 9, p. 91.

¹⁰⁰ Ibid., II. i. 14, p. 93.

out of all those things where its absence exists. Hence, oil should have been produced even out of dust. This उपादानशक्तिनियम determines that an effect is already present in its cause before its manifestation.¹⁰¹ There are several Ārutis also to support this view.¹⁰² By cause here we should understand material cause (*upādāna*) alone, so it is not possible in the case of fire and smoke where there exists the instrumental causality.¹⁰³ But in spite of this identity between the cause and its effect, Bhāskara, true to his *Bhedābheda*, believes that when the cause comes to manifest itself as an effect and assume a different form then, of course, there is also difference between the two in a way.¹⁰⁴ It is on account of this that the *Ākāṣa*, limited within a pot, after the pot is destroyed merges itself into the *Ākāṣa* outside the pot, the *Jīva*, after its limitation is removed, merges into *Brahman*, the *prapañca* merges itself into *Brahman* during *pralaya* and so on.

Besides, there is no reason to believe the *asat-kāryavāda*. Never we find that the hare's horn is produced, the son is born of a barren woman and so on. As to the argument that there is a difference between the cause and its effect because their functions differ, it is said that this so-called difference is only meant for carrying on our ordinary dealings and cannot therefore be taken to be a radical and real one. This is also supported by the Ārutī—सोम्यैकेन मृत्पिण्डेन सर्वं मृण्मयं विज्ञातं स्यात् वाचारम्भणं विकारो नामधेयं मृत्तिकेत्येव सत्यम् etc.

In the like manner, Bhāskara also rejects the theory of production out of non-existence as held by the शून्यवादिन्s as unsound.

It is also clear from the above that there are two stages of the cause—(1) the स्वरूपावस्था and (2) the कार्यावस्था. But there does not exist any real difference between these two stages, like the two stages of a cloth—one when it is folded and the other when it is spread.¹⁰⁵

9. The Theory of Bhedābheda

The above-mentioned view about the causality leads us to conclude that there is both difference and identity between the cause and its effect.

¹⁰¹ Ibid., II. i. 14, 16, 18.

¹⁰² Quoted under BS. II. i. 14, p. 93.

¹⁰³ Ibid., II. i. 15.

¹⁰⁴ Ibid., II. i. 18.

¹⁰⁵ Ibid., II. i. 19.

The difference is simply due to their difference in appearance and in states, but essentially there is none. The cause alone appears in different forms, like the water of ocean as waves, foams, bubbles etc. *Brahman* is alone the supreme cause and it is he alone who assumes different rôles in different garbs. Thus, both *Jīva* and the *prapañca*, the two *śaktis* of *Brahman*, are identical with *Brahman* who is alone *śhaktimān*. And it is, therefore, that *prapañca* merges itself into him during *pralaya* and so does the *Jīva* in *mukti*. Some find out a sort of *virodha* in the above relation and hence, do not accept the theory of *Bhedābheda*. But truly speaking, there is no *virodha* at all, as we find in the case of the shadow and the sun, or heat and cold. These really cannot remain in the same substrata and hence, there is *virodha* in them ; but in the case of *Brahman* and *Jīva* or the *prapañca* the relation is not the same. The production, the existence and the destruction of the *prapañca* can together remain in the same substratum, that is, the *Brahman*. Moreover, a *virodha*, even if there be any, does not do any harm ; for according to Bhāskara, when through the means of right cognition (*pramāṇa*) it is proved, then the question of *virodha* and *avirodha* does not rise, as it is said—

यत् प्रमाणैः परिच्छिन्नमविरुद्धं हि तत् तथा ।

वस्तुजातं गवाश्वादि भिन्नाभिन्नं प्रतीयते ॥

प्रतीयते तदुभयं विरोधः कोऽयमुच्यते ।

विरोधे चाविरोधे च प्रमाणं कारणं मतम् ॥१॥¹⁰⁶

These are some of the arguments to prove the theory of *Bhedābheda*.

10. Prapanca and its nature

Prapañca, being the कार्यस्वरूप of *Brahman*, is as much real as its cause. In fact, there being no difference between *Brahman* and his *Svarūpa*, *prapañca* is identical with *Brahman*. The difference is that of form only. The universe is real (*Satya*) both for a *jñānī*, who has realized the true knowledge and for *ajñānī* who is still in dark, just as colour is real both for a man who has a good eyesight and a blind who has none.¹⁰⁷ Moreover, Bhāskara being a realist says that no one has ever seen the

¹⁰⁶ Ibid., I. i. 4, p. 17.

¹⁰⁷ Bhāskara-Bhāṣya, I. i. 4, p. 18.

universe entirely lost. It has ever existed and would also remain ever in future. Thus, there is really none to deny its existence ever.¹⁰⁸

This has no beginning.¹⁰⁹ It is manifested by *Brahman* after the period of dissolution is over, during which period it remains merged in *Brahman* in a subtle form. This manifestation is called creation (*sr̥sti*).¹¹⁰ In this creation, in *Jīva*—the form of enjoyer, consciousness becomes manifested, while it is unmanifest in the *jad-jāgat* which is the object of enjoyment.

(a) Process of creation.

The process of creation is described as follows. The omniscient *Paramātmān* knows the approach of the fructification of the past deeds of beings and first creates subtle elements or *Ayākṛta-Ākāṣa*, then *Hiraṇyagarbha*¹¹¹ in whom *Brahman* enters himself, and through the form of *Hiraṇyagarbha*, creates the universe (*aṇḍa*) through the process of *Ākāṣa* etc. and then all the beings upto the lowest according to the nature of the past deeds of the created beings.

The eternal Vedas which had merged into *Brahman* during *pralaya* also, manifest themselves in *Hiraṇyagarbha* after the *pralaya* is over through the grace (*anugraha*) of that very *Brahman*.¹¹² The *Hiraṇyagarbha* becomes enlightened with the manifestation of the Vedas ; and with the help of these lamp-like Vedas, he creates gods, human beings and lower creatures.¹¹³ Amongst the objects of enjoyment he creates first *Ākāṣa* which is although partless, yet is an evolute, like the activities of *Buddhi* (*Buddhikarmavat*).¹¹⁴ Along with the production of *Ākāṣa* its quality—sound also is produced, as there is no difference between a substance and its qualities.¹¹⁵ After this, *vāyu* is produced along with its qualities of touch and sound which it gets from *Ākāṣa*. From *vāyu* is produced

¹⁰⁸ जगच्चातुच्छिद्यमद्य दृश्यते तथा कालान्तरे,—Ibid., I. iv. 21, p. 82 ; प्रपञ्चप्रविलापनमशक्यं पुरुषमात्रेण कर्तुम्—Ibid. I. iv. 21, p. 83.

¹⁰⁹ Ibid., II. i. 36.

¹¹⁰ Ibid., I. iii. 30, p. 64.

¹¹¹ One, who has performed austerities in previous life with an aim to become *prajāpati*—creator in next life, is called *Hiraṇyagarbha*—Ibid., I. iii. 28, p. 61.

¹¹² Ibid., I. iii. 30, p. 65.

¹¹³ Ibid., I. iii. 28, pp. 61-62.

¹¹⁴ Ibid., II. iii. 7, p. 131.

¹¹⁵ न च गुणादीनां पृथगुत्पत्तिर्वैकल्या, द्रव्योत्पत्तौ चोत्पत्तिसिद्धेस्तदन्यत्वात्—Ibid., II. iii. 9, p. 132.

*tejas*¹¹⁶ and its qualities of colour, touch and sound. From *tejas* comes out water along with its qualities of taste, colour, touch and sound.¹¹⁷ Lastly, from water is produced earth with its qualities of smell, taste, colour, touch and sound. These manifestations of *Brahman* are meant simply for the worldly dealings (*vyavahāra*).¹¹⁸ This may be called the manifestation of the *bhūtas* (*bhautikasṛṣṭi*).

Time and *Dik* are also not eternal. By *Dik* Bhāskara understands that which is denoted by the rising and the setting of the sun, while time is denoted by the movements of the sun.¹¹⁹ In course of further manifestation, both the external sense-organs, in the form of five *jñānendriyas* and five *karmendriyas* and the two internal sense-organs, namely, intellect (*buddhi*) and mind (*manas*) are also produced.¹²⁰ The external sense-organs are so many parts of the body which are capable of cognising colour etc. The function of intellect is to be sure of anything (*adhyarsāyātīka*), while that of the *Manas* is *Samkalpa*, memory, intention (*citta*) etc.¹²¹ *Ahaṅkāra* is an attribute of intellect. *Manas* is also a sense-organ, because it is the cause of the cognition of colour etc.¹²² The function of the five *jñānendriyas* is to cognise their specific objects in the form of sound, touch, colour, taste and smell, and that of the *karmendriyas* is to speak, to take, to move, to excrete and to enjoy sexual pleasure.¹²³ All these sense-organs are very subtle (*sūkṣma*).

Prāṇa is only a particular state of *vāyu* and is not different from it. Just as the various sense-organs help the individual self to experience pleasure and pain, so does the *Prāṇa* with its different functions which mainly help the existence (*sthiti*) of the body, sense-organs etc.¹²⁴ The *vāyu* along with its five forms (*avasthās*) helps the *Jiva* as *Manas* does with

¹¹⁶ In the Ṣrutī—‘तत् तेजोऽसृजत्’, the word ‘तत्’ stands for *Brahman*; but the same *Brahman* appears as *vāyu* and then manifests *tejas*,—Ibid., II. iii. 10.

¹¹⁷ Ibid., II. iii. 11.

¹¹⁸ Ibid., II. ii. 16, p. 116.

¹¹⁹ कालेऽप्यादित्यादीनां (कालोऽप्यादित्यादीनां ?) गतिविशेषोऽस्तमयोदयलक्षितो भागो दिगुच्यते—Ibid., II. iii. 9, p. 132.

¹²⁰ Ibid., II. iii. 15, pp. 133-34.

¹²¹ Ibid., II. iii. 15, p. 134.

¹²² Ibid., II. iv. 17.

¹²³ Ibid., II. iv. 6.

¹²⁴ Ibid., II. iv. 10-12.

its own *vr̥ttis* in the form of *Samkalpa*, *Craddhā* etc. The five forms of *vāyu* are *prāṇa*, *apāna*, *vyāna*, *udāna* and *samāna*. *Prāṇa* is that form which is found near mouth and nose and is the cause of speech. *Apāna* is that which helps the excretion of dirt out of the body. *Apāna* remains between the above-mentioned two forms. *Vyāna* helps the activities of the limbs. *Udāna* helps the upward motion, and *Samāna* is that which helps the digestion of food, water etc.^{1 2 5}

The *Prāṇa* functions even when the sense-organs stop their activities during *susupti*. Its function naturally pervades even the activities of all the sense-organs.^{1 2 6} It is so subtle and limited (*paricchinna*) that when it leaves the body and goes out none can perceive it. It overpowers the activities of the sense-organs during *susupti* and does not allow them to function.^{1 2 7}

Every individual self has got its own fixed set of sense-organs which accompany the particular *Jīva* wherever the latter goes.^{1 2 8}

Regarding the formation of organisms, it is held that some are *yonija* and some *ayonija*. *Sītā*, *Draupadī* and others belonged to the latter class. Out of the former, we have *jarāyuja* (viviparous), *anḍaja* (oviparous), *svedaja* (that which is produced from sweat) as louse, nit etc., and *udbhija* that which germinates after piercing through the earth, as trees plants etc. Organic *sthāvara* is perhaps included under the last. So the last two classes of organisms are produced even without the union of male and female.^{1 2 9} In the case of human organism, it appears that Bhāskara proceeds on the basis of the *Trivṛtkaraṇa* process, so that of the three—*anna* (solid food), *ap* (water) and *tejas*, the first is, again, subdivided into three—the grossest (*sthaviṣṭha*) which turns into night-soil (*purīṣa*), the subtlest (*anistha*) helps *Manas*, while the middle one turns into flesh; the second, that is, *ap*, leads to vital-air (*prāṇa*), blood and urine. The last gives bones and fat.^{1 3 0}

^{1 2 5} Ibid., II. iv. 12.

^{1 2 6} Ibid., II. iv. 19.

^{1 2 7} सुषुप्तौ प्राणग्रस्तेषु करेषु दर्शनादित्यवहारो न—Ibid., I. iii. 8.

^{1 2 8} Ibid., II. iv. 15-16.

^{1 2 9} Ibid., III. i. 20, p. 158.

^{1 3 0} Ibid., II. iv. 21.

(b) Process of dissolution (Pralaya)

That the universal activities stop for some time when the entire creation merges itself into its primordial cause—*Brahman* is accepted by Bhāskara. He does not believe that the *pralaya* is the absolute destruction.¹³¹ Through gradual process in the reverse order the entire *prapañca* becomes very subtle and gives up all its assumed forms (*vīkṛtis*) and then retires into its ultimate cause.¹³² Along with this, the Vedas also retire into *Brahman* during *pralaya*.¹³³

11. The individual Self-Jīvātman

It has been already said above that *Brahman* modifies himself in the form of *Jīva* which is his *bhoktr-çakti*. The *Jīva* is really an *añca*,¹³⁴ a term used for *Brahman* under limitation, like the sparks of fire, or the *Ākāṣa* limited within a pot. This limitation, which differentiates the two since time immemorial, is due to nescience and *karman*.¹³⁵ The difference thus caused exists till the final emancipation is achieved and the *Jīva* becomes free from bondage after the nescience, surrounding it, is dispelled.¹³⁶

The *Jīva* which is in bondage has never got liberation before, for if once it achieves emancipation, it never comes back in bondage. Therefore, *Jīva* is only *saṁsārī*, but after liberation, it becomes one with *Brahman*.

Jīva is eternal and conscious (*Jñā*), as it is the *çakti* of *Brahman*.¹³⁷ It is atomic (*anu*) which has been roughly described to be like the hundredth part of the tip of an hair. It is because of this that it leaves one body, goes out and enters into another body.¹³⁸ Even being atomic *Jīva* feels the sensation of the entire body, just as a single drop of sandal-

¹³¹ Ibid., I. iii. 30.

¹³² Ibid., II. iii. 14, p. 133.

¹³³ Ibid., I. iii. 28, pp. 61-62.

¹³⁴ उपाध्यवच्छिन्नस्यानन्यभूतस्य वाचकोऽयमंशशब्दः प्रयुक्तो यथाऽग्नेर्विष्कुलिङ्गस्य—Ibid., II. iii.

43 p. 140.

¹³⁵ Ibid., I. iv. 21.

¹³⁶ Ibid., I. iv. 20.

¹³⁷ Ibid., II. iii. 18.

¹³⁸ Ibid., I. ii. 1 ; I. iii. 13 ; III. ii. 22.

wood paste on one particular part of the body gives pleasure throughout the body. The natural place of location of *Jīva* is heart wherefrom it becomes connected with the tactile-organ (*tvak*) through which it gets cognition of all the parts of body.¹³⁹ This atomic nature of *Jīva* is also only unnatural and accidental (*anpādhika*). The limitation of *Jīva* in the form of *buddhi* etc. remains till the dualism prevails.¹⁴⁰

Jīva is the agent¹⁴¹ which, again, is not its nature (*svarūpa*). Had the कर्तृत्व (agency) been real in *Jīva*, then there would have been no liberation. Hence, when the accidental *kartṛtva*, which also comes to *Jīva* through the grace of *Brahman* himself, is removed, *Jīva* becomes one with the *Paramātman*.¹⁴²

It does not manifest eternal bliss (*ānanda*), सत्यसंकल्पत्व, अमृतत्व and अभयत्व; as it is always in bondage during which state these attributes cannot be found.¹⁴³ It cannot be also अन्तर्यामी, for its powers are very much limited and it can have no control over everything.¹⁴⁴ Due to nescience and the influence of its past deeds, it has got a form, but that is subtler than and different from body, sense-organs etc. It is real and does not possess any of the attributes of *Brahman*. But through *upāsana* (devotion and meditation), these qualities become manifest in it. It is eternal and hence has got no *Sankoca* (contraction) and *vikāṣa* (expansion)¹⁴⁵ like the *Jīva* of the Jainas. It is realized within one's ownself by all through *pratyabhiññā* expressed in the form—'I perceived this.'¹⁴⁶

12. The Subtle Body (Linga-Carira)

It has been said above that *Jīva* moves from one body to another and from one *loka* to another. Now, it may be asked whether it goes out and moves without any body or not. It is a fact that it cannot do so without

¹³⁹ Ibid., II. iii. 24, 28.

¹⁴⁰ यावद्यमात्मा केवलेन द्वैतदर्शनेन संपरति तावत्कालभावी बुद्ध्याधुपाधियोगः—Ibid., II. iii. 30, p. 137.

¹⁴¹ कर्ता आत्मा शान्तिवत्वात्, यजेतोपासीत; यः कर्ता स जीवोऽन्यत्करणम्—Ibid., II. iii. 33, 38.

¹⁴² Ibid., II. iii. 40-42.

¹⁴³ Ibid., I. ii. 3; I. ii. 27.

¹⁴⁴ Ibid., I. ii. 20.

¹⁴⁵ Ibid., IV. ii. 11.

¹⁴⁶ Ibid., II. iii. 17, p. 134.

an organism and as the gross one is left behind, it is assumed that *Jīva* becomes enveloped in a body which is very subtle and consists of the ten external sense-organs, the two internal organs -- *Manas* and *Buddhi* and the five forms of *Vāyu*. It assumes the very nature of these and then moves out under the influence of nescience and its own past deeds. This it does simply to experience pleasure and pain in accordance with its own past deeds.¹⁴⁷ This body of *Jīva* is called *liṅga* or *sūkṣma-ṣarīra*. *Brahman* does not possess it.

This body does not leave the company of *Jīva* till the latter remains in bondage.¹⁴⁸ It is so subtle that it does not perish with the death. If it were so, then everyone would have achieved liberation simply by dying.¹⁴⁹ It has got the capacity to contract and expand itself, so in whatever organism it enters it adjusts itself.¹⁵⁰ It has got a sort of heat (*ūṣmā*) due to which it is found even in the gross body.¹⁵¹

Regarding the passage of this subtle body toward higher regions, it is said that after coming out of the gross body through the *Mūrdhā Nāḍī*, it catches the rays of the sun and proceeds through the *Devayāna* path.¹⁵² It goes to *Agniloka*, *Devaloka*, *Vāyuloka*, *Varuṇaloka*, *Indraloka*, *Prajāpatiloka* or *Brahmaloka*. The last *loka* is that of *Hiranyagarbha* and *Jīva* remains in it for some time.¹⁵³ After which in course of time when the *Kārya-Brahman* becomes merged in *Brahman* during the *Mahāpralaya*, then this *Hiranyagarbha* becomes liberated and along with it the *liṅga-ṣarīra* also dissolved itself after its *Jīva* had become liberated.¹⁵⁴

13. Idea of Emancipation (Mukti)

By 'emancipation' Bhāskara understands the assuming of the original and natural form by *Jīva* after getting rid of the limitations. In so doing, the *Jīva* does not retain its accidental form but becomes one with

¹⁴⁷ Ibid., II. iii, 29 ; III. i, 1, 6-7.

¹⁴⁸ Ibid., IV. ii, 6.

¹⁴⁹ Ibid., IV. ii, 8--10.

¹⁵⁰ Ibid., II. iii, 29 ; IV. ii, 11.

¹⁵¹ Ibid., IV. ii, 11.

¹⁵² Ibid., IV. iii, 1.

¹⁵³ Ibid., IV. iii, 2.

¹⁵⁴ Ibid., IV. iii, 9, 14.

the *Paramātman*, just as the *Ākāṣa*, within the limitation of a jar, becomes one with the *Mahākāṣa*, after the jar is destroyed.¹⁵⁵ Such a *mukti* is of two kinds: *Sadyo-mukti* (instantaneous liberation) and *krama-mukti* (liberation through graduation). He, who directly meditates upon the Causal *Brahman*, becomes emancipated at once and is said to have achieved the former type of liberation. But he, who achieves it after going to the *Kārya-Brahman*, gets the second kind of *mukti*. In the latter case, the *Jīva*, enveloped in the subtle body, has to pass through the *arcirādi* path, as described before, and enter into the *Hiranyagarbha* who is the *Kārya-Brahman* and remain there till the internal sense-organ (*antaḥkaraṇa*) becomes purified. After this it gets enlightenment (*jñāna-prakarsa*) and when the *Hiranyagarbha* dissolves itself into *Brahman* during the *mahāpralaya* and becomes liberated, the *Jīva* also becomes free from bondage and becomes one with *Brahman*. Both of these types of *Mukti* are achieved through *upāsana* (deep meditation) and enable *Jīva* not to return to bondage again.¹⁵⁶

The *aīṣvāryas*, in the form of *animā*, *mahimā* etc., belonging to *Paramātman*, are found with those liberated beings who have become one with the *Brahman* through the realization of Causal *Brahman*, and are not limited by any *upādhi*, while in the case of those who get the emancipation through the *Kārya-Brahman*, the *aīṣvāryas* are limited.¹⁵⁷ But in every case, no liberated being can have these *aīṣvāryas* independent of *Brahman*; since originally, these belong to *Īṣvara* from eternity.¹⁵⁸ Due to this, *Īṣvara* alone can interfere with the worldly activities and none else.

According to Bhāskara, true liberation is not possible as long as the *Jīva* has got body as its limitation. It comes just after the fall of the body in case of those who have achieved true knowledge. The only possible liberation which can be realized during the lifetime is freedom from malice, hatred, stupidity (*moha*) etc. and their subsidiaries pride

¹⁵⁵ Ibid., III. iv. 50.

¹⁵⁶ Ibid., IV. iii. 14 ; IV. iv. 22, p. 249.

¹⁵⁷ परमकारणे सायुज्यं गतानां च निबध्निकमैश्वर्यम् । ये पुनर्वेदान्ते मुक्ताः पृथग्वतिष्ठन्ते इति तन्मतमभ्युपगम्य सावधिकमैश्वर्यम्—Ibid., IV. iv. 17.

¹⁵⁸ Ibid., IV. iv. 21.

(*mada*) etc.¹⁵⁹ This also shows that there can be no *Jivanmukti* according to Bhāskara. Besides, if it were possible then *Jiva* now being omniscient should have felt pain and pleasure of others also which is not the fact.*

True knowledge leading to the final emancipation is produced by the constant practice of *śravaṇa*, *manana* (reading, hearing and meditating upon the *Ṛutis*) etc. throughout the whole life.¹⁶⁰ It does not depend upon the desire of any man, but upon the means of cognition (*pramāṇa*) and objects of knowledge (*prameya*). Man can only try for it through *śravaṇa* etc. but the result will come to him itself.¹⁶¹ Again, without the practice of *śama*, *damā* etc.—the eight preliminary forms of yoga—no liberation is possible, hence it is essential to continue it till the end of life. Through the repeated practice of these, the true significance of the terms 'tat' and 'tattv', in the *ṛuti*—*tattvamasi*, becomes clear and then alone the true knowledge of *Paramātmān* is attained. But as the inner faculty (*antahkaraṇa*) of all is not free from malice etc. the true knowledge cannot be achieved by all,¹⁶² and it is, therefore, held by Bhāskara, that the practice of *śravaṇa*, *manana* etc. should be repeatedly performed. Even in the case of *Uśaktaketu*, without the repeated practice of these, false knowledge, doubt, malice etc. could not be removed and then what to speak of others who are beset with so many defects from time immemorial.¹⁶³ Hence after these repeated practices, when true knowledge is attained and false knowledge, about the real nature of *Paramātmān*, is cast off, then the real *Svarūpa* of *Brahman* becomes realized and final emancipation is achieved.¹⁶⁴

During the state of liberation, according to Bhāskara there is *sambodha* or *jñāna*, as opposed to *Caṅkara*. The liberated beings enjoy eternal bliss.¹⁶⁵ The argument, that *Jiva* would never be liberated, as there is

¹⁵⁹ Ibid., IV. i. 14

* *Bhāskara-Bhāṣya*, III, iv. 26; p. 210.

¹⁶⁰ Ibid., I. i. 1, p. 6.

¹⁶¹ Ibid., I. i. 3, pp. 10-11.

¹⁶² चित्तसंस्कारपाटवाभावात् etc.—Ibid., IV. i. 1, p. 218.

¹⁶³ Ibid., IV. i. 1, p. 219.

¹⁶⁴ Ibid., I. i. 4, pp. 19-20.

¹⁶⁵ Ibid., IV. iv. 7, 14.

rāga (attachment), in the form of experiencing eternal bliss, in it, has no weight with Bhāskara. He holds that attachment towards *Paramātman* always leads to *mukti*, while that which is for the worldly achievement, leads to bondage.¹⁶⁶

A liberated being experiences eternal happiness even in the absence of body, sense-organ etc., through *Manas* alone.¹⁶⁷ But as such a being has got freedom and godly powers, he can create bodies at his sweet will for such enjoyment. But it is not at all essential for a liberated being to have a body for experiencing bliss. Again, whether there is *Manas* during liberation to help the experiencing of eternal bliss, it is said that as these beings have all powers and become *satyasaṅkalpa*, both the consciousness (*cetanā*) for enjoying bliss and *Manas* to help these enjoyments, become manifest in those newly created bodies.¹⁶⁸

14. Importance of Karman for emancipation

Just as true knowledge is essential for the attainment of *apavarga*, so also the constant performance of *ācramakarma* (duties according to the four *ācramas*) is equally essential.¹⁶⁹ True knowledge along with the regular practice of one's own duties till the end of life alone can lead to emancipation, and it is, therefore, not wise to give up the performance of one's own duties before.¹⁷⁰ This is what is required both by the *Ṛṣi*¹⁷¹ and the *Bādarāyaṇa Sūtra*.¹⁷² Janaka, the great *Brahmavid*, also had to perform his duties.

If the performance of one's own duties were not essential, then even the *Paribrajakas* would not have done any *karman*. That they also do their duties, in the form of external purification, begging etc. and also internal activities due to the fact that they possess organism, cannot be denied.¹⁷³ Even *Yatis* also should perform their duties of *ācrama*, otherwise they would incur sin. Those who hold that at this stage they

¹⁶⁶ Ibid., I. iv. 21.

¹⁶⁷ Ibid., IV. iv. 13.

¹⁶⁸ Ibid., IV. iv. 15.

¹⁶⁹ Ibid., I. i. 4, p. 20.

¹⁷⁰ Ibid., III. iv. 26.

¹⁷¹ Quoted under Bhāskara Bhāṣya, III. iv. 7.

¹⁷² Ibid., III. iv. 1.

¹⁷³ Ibid., III. iv. 20, pp. 206, 209.

should give up every duty speak a flat lie. Besides, there is neither any Āṣṭi nor any Smṛti to indicate that abandoning of *karman* at any stage leads to liberation.¹⁷⁴ The Āṣṭi—‘पुत्रैषणायाश्च वित्तैषणायाश्च लोकैषणायाश्च व्युत्थायाश्च भिक्षाचर्यं चरन्तीति’—has been misunderstood and misinterpreted by those who think that it requires the abandoning of all sorts of *karman*. What actually the above-quoted Āṣṭi teaches us is that one should give up the *grhasthācrama* and enter into another,—and not giving up of *karman* at any stage. If it were not so, then for whom, in the same context, *tridanda*, *Yajñopaveśita* etc. have been mentioned. These speak of the higher *ācrama* which the above Āṣṭi teaches. This is exactly what the Smṛti also holds,¹⁷⁵ and if Smṛti be not accepted as reliable, then the भिक्षाचरण of शाक्य, क्षपण etc. also would become included in the Āṣṭi.

Again, the Āṣṭi—तपःप्रभावात् देवप्रसादाश्च ब्रह्म ह श्वेताश्चतरोऽथ विद्वान् अत्याश्रमिभ्यः परमं पवित्रं प्रोवाच सम्यग्पिसंघजुष्टमिति’—also has been wrongly interpreted. It does not indicate that *apavarga* is achieved through true knowledge alone after all the *karman*s have been given up, for the term ‘अत्याश्रमिभ्यः’ can neither be used for those who go beyond the limits of *ācramas* (आश्रमानतिक्रम्य ये वर्तन्ते ते अत्याश्रमिणः = आश्रमलङ्घनकारिणः), for they then being offenders (प्रायश्चित्तभागिनः) do not deserve the true teaching (*upadeśa*), nor for those who have attained true knowledge (उत्पन्नज्ञानाः), for in that case ‘प्रोवाच’ (spoke) has no sense. So really the term has been used for ‘पूजिताश्रमिभ्यः,’ ‘वृत्तस्वाध्यायसम्पन्नेभ्यः,’ which is also supported by the author of Nirukta.

Even the Jābāla Āṣṭi—‘ब्रह्मचर्यं समाप्य गृही भवेत्, गृही भूत्वा वनी भवेत्, वनी भूत्वा प्रव्रजेत् । यदि वेतरथा ब्रह्मचर्यादेव प्रव्रजेत्, गृहाद्वा वनाद्वेति’ । etc. does not indicate the abandoning of *karman*; for the term ‘प्रव्रजित’ in the above Āṣṭi does not denote ‘abandoning.’ So nowhere either in any Āṣṭi or in any Smṛti the abandoning of *karman* has been prescribed. Thus, Bhāskara proves that like the true knowledge, performance of *karman*, till the end of life, is also essential for liberation.¹⁷⁶ Moreover, from the Āṣṭis the knowledge of objects (*arthajñāna*) alone can be achieved and not the destruction of the worldly *bhāvas*. So until the *upāsana* is not performed, the seed of pain would not be made ineffective.

¹⁷⁴ Ibid., III. iv. 20, 26.

¹⁷⁵ पुत्रादिलिङ्गाद्गार्हस्थ्याद् व्युत्थायाश्रमान्तरं प्रतिपद्यन्तमिति स्मृतिप्राप्तमेवानुद्यते etc.—Ibid., III. iv. 26, p. 208.

¹⁷⁶ Ibid., III. iv. 26, pp. 208, 209.

Now, as regards how *Vidyā*—true knowledge—is helpful for emancipation, Bhāskara holds that true knowledge destroys the perverse knowledge about the real nature of *Ātman* through the help of the repeated practice of *śravaṇa*, *manana* etc. But it cannot remove the knowledge of difference (*bhedajñāna*) which is also a kind of *avidyā*, as we find in the philosophy of Āṇkarācārya. As long as the *bhedajñāna* remains, the body, under the influence of the *prārabdha karman*, continues to help the experiencing of pleasure and pain, along with the sense-organs and *Manas*. And, again, as long as the cognition in the form 'my body' remains, so long it is not possible to be free from the performance of *karman*. But when after the attainment of true knowledge helped by the constant performance of *karman*, the body falls as dead, then alone the *bhedajñāna* comes to an end, both the worldly and the *Vaidika karmans* become extinguished and the godly qualities of omniscience etc. become manifested. Together with this the false (*aupādhika*) notions of doership (*kartṛtva*), of being an enjoyer etc. also come to an end.¹⁷⁷

When true knowledge is attained then all the *karmans* except the one which has begun to yield fruits in the present life, are either destroyed or are made ineffective. No definite rule can be given as to which set of *karmans* is destroyed first and which next. But with the help of Āṇkarācārya's idea about this can be had.¹⁷⁸

15. *Upāsana* and its process

Both *upāsana* and the practices of Yoga are essential for true knowledge. Even gods, like *Indra* and others, have to assume body, sense-organs and *Manas* in order to perform meditation (*upāsana*) for attaining liberation.¹⁷⁹ In meditation one should think of Real, Infinite, Blissful, Conscious, Formless and Pure Causal *Brahman* alone, as we find in the Āṇkarācārya also 'अशब्दं, अस्पर्शं अरूपं अव्ययं अनणुं अह्रस्वं' etc.¹⁸⁰

It is needless to repeat that meditation is meant for emancipation and hence, it would proceed on the *nivṛttimārga*. The process is that all the activities of the external sense-organs should be stopped and cut off from

¹⁷⁷ Ibid., III. iv. 26, pp. 209-210.

¹⁷⁸ Ibid., IV. i. 15, pp. 224-25.

¹⁷⁹ Ibid., I. iii. 6, 27—29.

¹⁸⁰ Ibid., III. ii. 11, 15-16, 19, 23; III. iii. 1.

the external world and be merged into their cause—the *Manas*. The *Manas* also should stop its activities in the form of *saṅkalpa*, desire, memory, etc. and merge itself into the intellect (*buddhi*). Then intellect, in its own turn, should merge itself into the *jīvātman* (*mahān ātmā*) who is the enjoyer. And lastly, this enjoyer also should be made one with the *Paramātman* who is undisturbed (*śānta*), transcendental (*prapañcārita*), omnipresent, and *amṛtarasa* and should have the idea of 'I am *Brahman*.'

Sanaka and others have described this process as Yoga in their *Yoga-śāstra*; for according to them Yoga consists of *dhyāna* (attentiveness of the *citta* towards the attainment of the desired object), *dhāraṇā* (the simultaneous stopping of the functions of *prāṇa*, sense-organs, intellect and *Manas*) and *Samādhi* (the constant linking of the eternal truth through full faith—*Śraddhā*—and effort).¹⁸¹ *Samādhi* has also been explained as remaining constantly in the state wherein the *Manas*, devoid of all its other functions, directs itself towards the *Paramātman*.¹⁸²

For such a meditation one should retire to an unpolluted place and sit at ease in *Svastikāsana* or *Sukhāsana*, close one's eyes and divert one's internal sense-organ towards the Blissful *Paramātman*. It is very essential that the internal sense-organ (*citta*) should be extremely undisturbed and calm, for then alone meditation will be effective and not otherwise.¹⁸³

This is what can be known about the philosophy of Bhāskara from his only work in some connected form. Besides, here and there, he has made some stray remarks on different topics of general philosophy which also help us to know his views. Hence, they are also given below without any particular order.

16. Miscellaneous topics

Bhāskara believes that *Ḍakti*, that is, the primary meaning of a word, rests with every individual word separately, and not in collection of words.¹⁸⁴

¹⁸¹ Ibid., I. iv. 1, p. 72.

¹⁸² Ibid., II. iii. 39.

¹⁸³ Ibid., IV. i. 8, p. 223.

¹⁸⁴ Ibid., I. i. 4.

Çūdras, being a separate caste, are not allowed to undergo any *samskāra*. They are not eligible for the study of the Vedas. If they ever try to hear the Vedas, their ears should be filled with lead and lac. Those, who are eligible to study the Vedas, should not read the *mantras* before the Çūdras.¹⁸⁵

Invalidity (*mithyātva*) is always known through other sources (*parataḥ*) and not *svataḥ*, just as by the knowledge of an oyster-shell (*çukṭikā*) the falsity of the knowledge of silver is determined and not by itself. Çruti is self-proved and does not require the help of any other means of right cognition to prove its validity.¹⁸⁶

Abstaining oneself from all sorts of activities, simply by taking bath one gets emancipation is a view which Bhāskara attributes to Sāṅkhya.¹⁸⁷

Bhāskara believes that an attribute (*dharma*) is destroyed either by the destruction of the substrate or by the production of an opposite attribute in the same substrate, as the blue colour of a pot is destroyed by the production of the red colour. This shows that he believes both in the *Piṭharapāka* and the *Pīlupāka* theories of the chemical action.¹⁸⁸

Dream represents the stage between the waking state and the *susupti*. All the activities of that state are described by Bhāskara as *artha-çūnya*, that is, they are mere remembrances of the past facts. The process is that the *Manas* carries the impressions (*vāsanās*) produced by the past experiences through the veins (*nāḍīs*) and then produces memory. As these memories represent auspicious and inauspicious deeds, both pleasure and pain are felt at that stage. *Jiva* is responsible for the creations of dreaming state and not *Brahman*. These dreams sometimes also indicate the future.¹⁸⁹

¹⁸⁵ Ibid., I. iii. 36—38.

¹⁸⁶ Ibid., I. i. 21; II. i. 1.

¹⁸⁷ Ibid., III. iv. 26.

¹⁸⁸ Ibid., III. iii. 54.

¹⁸⁹ Ibid., III. ii. 3.

APPENDIX

*Bhāṣaka**Çaṅkara**Rāmānuja*

- I. ii. 18. अन्तर्याम्यधिदैवाधिलोकादिषु तद्धर्म-
व्यपदेशात् । I. ii. 18. अन्तर्याम्यधिदैवादिषु तद्धर्मव्यप-
देशात् । I. ii. 18. As in Çaṅkara.
- I. ii. 19. न च स्मार्तमतद्धर्माभिलाषात् । I. ii. 19. न च स्मार्तमतद्धर्माभिलाषाच्छारीरश्च ।
- I. ii. 20. शारीरचोभयेऽपि हि भेदेनैतम-
भिधीयते । I. ii. 20. शारीरचोभयेऽपि हि भेदेनैतमर्थायते । I. ii. 20. As in Çaṅkara.
- I. iii. 6. प्रकरणाच्च । I. iii. 6. As in Çaṅkara.
- I. iii. 35. क्षत्रियत्वादेशोत्तरत्र चैत्रथेन
लिङ्गात् । I. iii. 35. क्षत्रियत्वावगतेश्च । I. iii. 35. As in Çaṅkara.
- I. iii. 36. उत्तरत्र चैत्रथेन लिङ्गात् । I. iii. 36. उत्तरत्र चैत्रथेन लिङ्गात् ।
- I. iii. 38. श्रवणाध्ययनार्थप्रतिषेधात् स्मृतेश्च । I. iii. 38. श्रवणाध्ययनार्थप्रतिषेधात् ।
- I. iv. 17. जीवमुख्यप्राणलिङ्गान्नति चेत् तद-
व्याख्यातम् । I. iv. 17. जीवमुख्यप्राणलिङ्गान्नेति चेत्
व्याख्यातम् । I. iv. 17. As in Çaṅkara.
- I. iv. 18. अन्याथं तु जैमिनिः प्रश्नव्याख्या-
नाभ्यामपि चैवमेके । I. iv. 18. As in Çaṅkara.
- II. i. 5. अभिमानव्यपदेशस्तु विशेषानु-
गताभ्याम् । II. i. 5. As in Çaṅkara.
- II. i. 11. तर्काप्रतिष्ठानादन्यथानुमेयमिति चेदेवमप्यविमोक्षप्रसङ्गः । II. i. 11. तर्काप्रतिष्ठानादपि ।
- II. i. 12. अन्यथानुमेयमिति चेदेवमप्यविमोक्ष-
प्रसङ्गः । II. i. 12. अन्यथानुमेयमिति चेदेवमप्यविमोक्ष-
प्रसङ्गः ।

*Bhāṣkāra**Çaṅkara**Rāmānuja*

- II. ii. 22. प्रतिसंख्याप्रतिसंख्यानियोधप्रसि-
सम्भवः । रचिच्छेदात् । II. ii. 22. AsinÇankara. This Sūtra is
numbered as 21, because
the Sūtra 'प्रवृत्तेश्च' (II. ii. 2)
has not been accepted by
Rāmānuja.
- II. ii. 23. The Sūtra 'उभयथा च दोषात्'
is not accepted by Bhā-
skara.
- II. ii. 31. The Sūtra 'क्षणिकत्वाच्च' is not
found in Bhāskara.
- II. ii. 32. The Sūtra 'सर्वथानुपपत्तेश्च' is
not found in Bhāskara.
- II. ii. 38. The Sūtra 'सम्बन्धानुपपत्तेश्च'
is not found in Bhāskara.
- III. ii. 15. अस्थूलमनयावहन्वमदीर्घमशब्दम-
स्पर्शमरूपमव्ययम् । प्रकाशवद्वाचैक्यर्यात् । II. ii. 38. The Sūtra 'सम्बन्धानुपपत्तेश्च'
is not found in Rāmānuja.
- III. ii. 16. प्रकाशवद्वाचैक्यर्यात् । II. ii. 15. The Sūtra of Bhāskara is
not found here.
- III. iii. 35. अन्तरा भूतयामवत् स्वात्मनः । and III. ii. 16. As in Çaṅkara.
- III. iii. 36. अन्यथा भेदानुपपत्तिरिति चेन्नोप-
देशान्तरवत् । Have got no
separate Bhāṣyas in Bhā-
skara.
- III. iv. 23. पारिप्लवार्थ इति चेन्न विशेषितत्वात् । III. iii. 36. Both are read together as
only one Sūtra and not two.
- I. ii. 22. उभयथा च दोषात् । The Sūtra
'क्षणिकत्वाच्च' is not found in
Rāmānuja.
- II. ii. 30. सर्वथानुपपत्तेश्च. The difference
is only in numbering.
- II. ii. 38. The Sūtra 'सम्बन्धानुपपत्तेश्च'
is not found in Rāmānuja.
- II. ii. 15. The Sūtra of Bhāskara is
not found here.
- III. ii. 16. As in Çaṅkara.
- III. iii. 35 and
III. iii. 36. Both are read together as
only one Sūtra and not two.
- III. iv. 23. As in Çaṅkara.

III. iv. 24. तथा चैकवाक्योपबन्धात् । Have
got no separate Bhāṣyas. III. iv. 24. तथा चैकवाक्योपबन्धात् ।
Both have got their own
separate Bhāṣyas.

III. iv. 42. The Sūtra 'उपपूर्वमपि त्वेके
भावमशनवत्तदुक्तम्' accepted by
Çaṅkara is not found here. III. iv. 42. उपपूर्वमपि त्वेके
भावमशनवत्तदुक्तम् ।

III. iv. 46. The Sūtra 'श्रुतेरच' accepted
by Çaṅkara is not found
here. III. iv. 46. The Sūtra 'श्रुतेरच' not found
here.

IV. iii. 5. The Sūtra 'उभयव्यामोहात्तत्सिद्धेः'
accepted by Çaṅkara not
found here. IV. iii. 5. The Sūtra 'उभयव्यामोहात्त-
त्सिद्धेः' accepted by Çaṅkara
not found here.

Besides, at the end of the Bhāṣkara-Bhāṣya on BS. I. ii. 15, it is said that some read here one more Sūtra —
'अत एव तद्व्यस्य', but as the sense of the Sūtra is covered by Sūtra 15, it is not accepted in the Bhāṣkara-Bhāṣya. This
Sūtra is not accepted by Çaṅkara even. Rāmānuja adopts this Sūtra with a little change—'अत एव च स व्यस्य' (I. ii. 16,
Rāmānuja-Bhāṣya). Çṛīkaṇṭha also accepts this Sūtra for his Bhāṣya.

CRABBE

By MR. BENE SIMLAI, M.A.

There is nothing in Crabbe's life that should interest us much, for he was a clergyman, and the life of a village priest with its dull routine of work can scarcely have anything interesting about it. Yet his life of 78 years, from 1754 to 1832, covers a memorable period of English history. These years saw the gradual decay of older traditions and the appearance of newer ideals in politics, in religion and in literature, ideals which revolutionized several important departments of life and still contain immense possibilities.

I may hazard the assumption that few of us care to read Crabbe's poetry. He is, however, said to have won a good deal of sincere applause from those of his contemporaries who in literary matters were recognized as oracles for their correctness and truth. We have outgrown the standard of taste and judgment that prevailed in the days of Crabbe; but in poetry we expect to find something of permanent interest which should transcend the limitations imposed upon it by rules and forms. Poetry should be a source of joy for readers in every age. Crabbe's limitation lies here. He is more truly a poet of his own time than even Tennyson was of his. So it is almost imperative that a cursory glance at this period should precede the study of his poetry, and for this purpose a short retrospect will be necessary: for the chief elements of which the general life of Crabbe's time seems to have been made up undoubtedly had their origin in the days of the Puritans and in the Restoration Period, denominated in literary histories as the age of Milton and that of Dryden respectively.

The primary aim of the Puritan was to set up a kingdom of God upon earth, inhabited by "the Lord's chosen people," the English. The Bible was made the guide in all matters and godliness was made the chief qualification for entering office. It is said that Cromwell kept the Bible on the table of the House of Commons and his army used to be known as the army of saints. "Merrie England" was no more: theatrical and other entertainments were taboo. Even pictures and statues did not escape the censorial zeal of the Puritan; for those

pictures which the Puritans considered not edifying enough were burnt and statues were chipped and plastered into decency.

With the Restoration, however, godliness became a byword of scorn and fashionable life began to oscillate between duelling and dissipation. Rochester, Sedley and Buckingham are typical of the court gallants of Restoration London,—men with whose exploits we have been made familiar by several novelists. It is said of Buckingham that after seducing Lady Shrewsbury he killed her husband in a duel while the lady, in disguise, held Buckingham's horse for him, as a page, and watched the ceremony of the killing of her husband by her lover. This is an incident characteristic of the period. Wycherly is condemned and called a Belial "than whom a spirit more lewd fell not from Heaven," but his dramas only reflected the general vice of the time.

But the same age, in spite of its seductions and intrigues, its duelling and debauchery, contributed one memorable thing to the world—the revival of the scientific spirit; and King Charles, who outran his courtiers in the immoral pursuits of his capital and court and may thus be called the chief of the fallen angels, has, nevertheless, immortalised himself by being associated with the Royal Society. Henceforth in religion, in politics, in the study of man and of nature, not faith but reason, not tradition but inquiry were to be the guiding principles.

So it was a peculiarly mixed legacy that was left by the 17th century to the 18th. In social life, however, the influence of the 17th century was disastrous. Free enquiry or free use of reason in the study and interpretation of scriptural mysteries, and a disgust for all theological controversy, and politics, offering a new diversion for the mind, provided a general indifference to religious speculation and to religious life; and the Higher Clergy, the Bishops and Governors of the Church, identified themselves, more and more, with the grand fashionable set in London, and crowded round the poor ministers of state for preferment and promotion. And like the proverbial mice, the cat being away in London, the Lower Clergy disported themselves. The parish priest quietly translated himself into the fox-hunting parson and the rector became a perpetual absentee. The sins of the clergy were visited upon the poor people. Quite late in the century

Hannah More said, "We saw but one Bible in a certain parish and that was used to prop a flower pot." Crime and immorality increased under the inspiration of the Goddess Gin, newly introduced at the time, which made it possible for the villager to get drunk for a penny, and dead drunk for two.

"Everyone laughs," remarked Montesquieu of cultured circles in England, "if one talks of religion." Drunkenness and foul talk were no discredit even to the prominent ministers of state. Walpole was notorious not only for making bribery fashionable but also for foul language. Another minister, the Duke of Grafton, went openly to all places with his mistress at his side. Purity and fidelity to the marriage vow were sneered out of fashion; and Chesterfield, the shrewd man of the world, recommended to his son (illegitimate) this act of seduction as part of a polite education. This level was more or less steadily maintained in social life for over a century and a half. Vice and immorality continued as a fashion among the men and women of the higher class and, of course, as a curse among those of the lower.

If poetry is to provide a means of escape from life then the poets of the 18th century have done their part admirably. But if poetry is to be woven out of life's multicoloured details, and if it must preserve contact with life, and reveal its deep spiritual significance then the major part, especially the minor poetry of the 18th century will have to be put aside as mere sentimental nonsense. For out of such rottenness and stink in life, the Arcadian sweetness of charming groves, with their simple and guileless nymphs and dryads, the Dalias and Strephons could never have spontaneously come forth.

In poetry the 18th century started with pursuing so-called Classicism; and Pope was its one great poet. Classical poetry looked for and found its inspiration in Reason, and Pope and his contemporaries believed in a philosophy, best named the Philosophy of Types which lost sight of the idiosyncrasies of the particular in the general of the type. Generalisations found a place in poetical dissertations like the *Essay On Man*, as well as in the satires. The themes of this poetry were necessarily of an abstract kind and the style and language were calculated to provide intellectual satisfaction. In the hands of the master mechanic the abstractions attain a certain dignity and rise above the particular with a nobility of universal application and acceptance;

but such poetry as a rule treated of a mechanical world, of stereotyped men and women, mostly Londoners—each a sort of two-legged phenomenon, from head to foot of reason all compact, from which emotion or feeling was entirely banished. A kind of intellectual, didactic poetry formulating a large number of rules to guide man's activities—their politics, religion, literature and conduct—was the inevitable result; and Pope in the heroic couplets of his *Essays* and *Epistles* and *Satires* gave inimitable expression to the judgments of the age.

The form of poetry in the so-called Classical period was practically limited to one, and the themes were limited to just a few; for man, in the abstract, is, after all, reduced to a small thing indeed, and when the vein was worked out, and worked out so thoroughly by Pope, poetry, for once at least in her history, seemed to be completely exhausted. Even during the lifetime of Pope, classicism became a dry tradition, and with the death of Pope orthodox classicism also breathed its last. Pope, in fact, was the first and the last of his school. But like all traditions this tradition lingered on and found legal sanction in the precepts and practice of Dr. Johnson, the literary dictator of the third quarter of the 18th century. The Doctor's shrewdness, however, detected that reason was played out; it had been found insufficient to serve as the foundation on which to build the complicated structure of human life. Life in the meantime had become a more complicated affair with various new interests and activities,—quite different from what it used to be in the days of Pope, when life was indeed like a pendulum swinging with the infallible regularity of Pope's poetic measure between coffee-houses and fashionable drawing-rooms and salons. Pope, thin but neatly elegant, tricked out in satin and plush and silver-buckled shoes, represented the old; and Johnson, clumsy, coarse and huge in red-brown tweed, symbolised the new age. Democracy had started its work. To base this larger life on reason alone would be like trying to raise a pyramid on a point. This Johnson realised.

Johnson started by accepting the classical position with respect to emotion and reason expressed by Pope in the couplet:—

“ On life's vast ocean diversely we sail
Reason the card, but Passion is the gale.”

The Professor in *Rasselas* says the same thing in prose: “ When fancy, the parent of passion, usurps the dominion of the mind the natural

result is unlawful government and confusion, for Passion betrays the fortresses of the intellect to those who rebel against Reason, their lawful sovereign. Reason is the sun and fancy is a meteor bright but irregular, transitory and delusive." These are definite statements of the dominant ideas of the classical age with regard to the value of the intellect and emotion, respectively, in life. But when sorrow comes upon him, the Professor exclaims in despair and bewilderment, "What comfort can truth and reason afford me? Of what effect are they now but to tell me that my daughter will not be restored?" Tested by the facts of life Reason is found wanting. This failure of reason to satisfy certain special human needs was the experience of Johnson's age and in *Rasselas* is to be found Johnson's own recognition of this failure.

Reason's supremacy was felt to be tottering at a time when classical poetry, the poetry of fashionable town-life, began to be distasteful to the rapidly increasing number of readers of the middle class; and the poets, failing to imitate the classical style or being unfamiliar with the ways of life of men and women of consequence in the cities, especially in London, or being disgusted thereby, could not make manners and fashions, politics or religion their subjects and, having some bent towards writing poetry, they looked beyond the town and instead of idealising reason and so satisfying the demands of the intellect endeavoured to rouse emotion and sentiment and started the sentimental school in literature.

Sentimentalism is merely an intermediate stage between Classicism, which was primarily an intellectual movement and hence confined to a group of select men and women, a sort of huge literary club, and Romanticism which emotionalised the intellect or intellectualised the emotion, that is to say, reintroduced imagination into poetry and, delivering poetry from the neo-classical bondage, helped to reinstate her in her proper place alongside of other creative arts.

Sentimentalism is Romanticism in knicker-bockers or an attempt of the mediocre minds at Romanticism in Literature. The writers of this school mostly hailed from the country and did not possess much knowledge of the life and manners that prevailed in London and could not possibly produce anything like *The Rape of the Lock*, nor could they attempt any moral, philosophical or satirical discourse in verse

as was the fashion. And the facts of every-day life they considered too vulgar and distressing to be kneaded into poetry; for these poets belonged to the Puritan middle class and wrote no longer for "fit audience though few," but for readers whose name is legion; and having a bias themselves towards Puritanism they looked upon the frivolous excesses of high life as abominations. Their task was to satisfy the average reader. But the average always maintains a lower level, and the average reader of this growing multitude was gifted with an imaginative faculty, too limited to appreciate and profit by high romance and his intellect was too coarse to understand and get much pleasure out of poetical treatises on life, society or religion. The demand they made on the writers was for a series of pictures of simple and virtuous life that they might easily understand them and be edified by them. This need of the puritanic middle class was supplied by the writers of the sentimental school.

Sentimentalism began with pastoralism. Having but feeble imagination at their command these writers could hardly create anything new: they only recreated a kind of arcadian life of simple virtues and soft emotions in their insipid pastorals in imitation of the good old model of the ancients. Pastoral poetry in imitation either of Virgil or of Theocritus, was attempted by Pope, Gay, Ambrose Philips, Shenstone, Collins and a host of others; and all the conventional shepherds and shepherdesses were made use of except by Collins, in whose *Persian Eclogues* the Strephons, Damons and Dalias of the conventional type were appropriately converted into camel drivers. They all created artificial surroundings; a false pastoral world whose artistic furniture was a garden and a shrubbery, which, of course, would be regarded as a forest; in the garden they would have a lake, a bridge and a grotto. This is the classical manner of representing nature, "nature methodised" and English rustic types were made to fit into this methodised world. This tendency is often called the artificial-natural tendency in poetry or simply pastoralism in poetry. Sadness, sighs and tears were introduced into this arcadian life by some writers of the Penseroso type, such as Edward Young and Collins. The poets who wrote during the middle years of the 18th century such as Young, Blair, Goldsmith and, to a certain extent, Cowper; and the novelists, Richardson, Sterne, Goldsmith and Mackenzie were all sentimentalists.

Even Fielding was not entirely free from its influence which gradually spread in most European countries, especially France and Germany.

The circumstances that helped to introduce sentimentalism in Literature explain also the appearance of Romanticism. Classical poetry in fact was a blind alley; it led nowhere. The sentimentalists drew arcadian pictures to quicken and please the sensibilities of the mediocre while the early Romanticists, by creating a world full of wonder and terror, roused the mind and showed the possibilities of its imaginative grasp. The Sentimentalists as well as the Romanticists shut their eyes equally effectively to all that was real in life, and so created a literature of escape ignoring or breaking away from that principle of classicism on which its vitality would finally depend, namely, search after truth. This essential spirit of classicism had its rebirth in Realism. But the pictures of life painted by the sentimentalists, the Pastoral writers and the Romanticists were anything but true to ordinary experience.

Crabbe somehow could not subscribe to the tenets of any of these schools, nor was he a classicist in the same way as Pope was. His temperament, formed by his early impressions and by his early medical and scientific studies, could not but make him a writer of things that he saw and knew. There is nothing like a choice or preference in his being a realist.

Theoretically realism is not inconsistent with classicism. In the artificial world of Pope or of Swift is to be found what has been called the realism of fiction,—a realism which is found in the writings even of the later “ineffectual angels” as more or less in the minor writers of the 18th century. Realism should have been the logical end of classicism, but fatally sandwiched as it was between full-blooded sentimentalism and growing romance it could not make any headway in the 18th century. Defoe seems to be the only writer of his time who wrote about the world as he found it, for even Fielding, though he began with parodying a sentimental novel, could not help being a little sentimental himself even in his *Joseph Andrews*. Sentimentalism was in the air and the entire life of the period seems to have been saturated with it. Crabbe continued what Defoe had revived, or rather he carried on the tradition inaugurated by Chaucer.

Crabbe started a crusade against the falsehoods deliberately practised in the matter of the presentation of life by different literary sects. But his was a voice in the wilderness. Though it reached the ears and touched the sympathy of Burke, Fox, Johnson and Scott, it failed, for all the discordant note it struck, to rouse from sweet slumber a generation drugged with the opiates of Pastoral and Romance.

Zeal often carries one on to the impossible or the absurd. Instances are not rare in history of men of greater literary eminence, than the neglected poet of *The Village*. Dickens in his zeal to expose the evils and irregularities of his time often became melodramatic in his extravagance; Wordsworth uttered something absurd about poetic diction; Arnold became a brooding stoic, and Carlyle a weeping prophet proclaiming through tears the approach of the day of doom. Hardy in this respect is only a profounder and more philosophic 19th century Crabbe exposing the barrenness and unsubstantiality of the complacent Victorian attitude to life. The conception of an idyllic life ending in a happy marriage and a peaceful fireside, presided over by an obedient wife and careful mother, is a resurrected pastoralism, a little coloured, perhaps, by utilitarianism, which worked as a balm and gave relief to the disturbed English mind after the French wars and subsequent revolutions on the continent and unrest at home. Hardy made efforts to exorcise the enchantment and open the eyes of the people to reality as Crabbe had removed the beautiful curtain of Pastoralism that lured people away from reality by providing for their contemplation a fictitious Sweet Auburn which nowhere existed.

“ Is there a place, save one the poet sees,
A land of love, of liberty and ease;
Where labour wearies not, nor cares suppress
Th’eternal flow of rustic happiness;
Where no proud mansion frowns in awful state,
Or keeps the sunshine from the cottage-gate;
Where young and old, intent on pleasure, throng
And half man’s life is holiday and song?
Vain search for scenes like these! no view appears,
By sighs unruffled or unstain’d by tears;

Since vice the world subdued and waters drown'd,
Auburn and Eden can no more be found."

The essential fact about Crabbe is that much of what he wrote, he wrote from personal knowledge. He himself belonged to the lower middle class and spent the struggling days of his early years among poor people mostly fishermen in a village on the seacoast. His most representative work, *The Village*, is the story of the life in his own village which he knew intimately. Compared to Goldsmith's sentimental paradise :

" Sweet Auburn loveliest village of the plain
Where health and plenty cheer the labouring swain . . ."

Crabbe's bare and unadorned pictures of

" The village life, and every care that reigns
O'er youthful peasants and declining swains "

are gruesome indeed; but they are none the less true representations of what he had seen and known in his youth.

The Village begins with satire levelled against Pastoral poetry, " the mechanic echoes of Mantuan Song." For his part Crabbe will not hide the real ills " in tinsel trappings of poetic pride." The village is described as a length of burning sand with its thin harvest waving its withered ears. The only growth there is the growth of rank weeds. Its inhabitants are a wild ambitious race but every face is a picture of misery. There the smugglers come, " the lawless merchants of the main," and tempt the swain to drink and its concomitant vices. Natural simplicity has gone out from life and in its place now reign wrong, rapine and fear. The villager's low hut is swept by a fierce tide " when the sad tenant weeps from door to door, And begs a poor protection from the poor." Constantly struggling against a cruel and unsympathetic nature—" Nature's niggard hand "—for their existence, the wretched inhabitants only hoard up aches and anguish for their age, the deferred but inevitable consequence of overworking an ill-fed and ill-clad body in the heat of the sun as well as in the rain. But, with all their labour the wretched meals they earn are such " as you who praise would never deign to touch."

There is also the house that holds the parish poor,

“ Where children dwell who know no parent’s care,
Parents, who know no children’s love, dwell there! ”

Heart-broken matrons, forsaken wives, mothers never wed, dejected widows, the crippled, the lame, and the blind,—and, the happiest of them all, the moping idiot and the madmen gay— here is a strange community of suffering people who spend their time in scanning each other’s sorrow. The “ big ” people in London, the members of Parliament, the ministers and the Bishops, all the fashionable set, of course felt quite elated and satisfied with their marvellous Christian achievement, the Poor-House,—the appropriate response of a mechanical age to Christ’s call to people to be charitable and to love their neighbours as themselves! But we, who are often oppressed by some fantastic ailments and press the weary doctor to name the nameless new disease,

“ How would we bear in real pain to lie,
Despised, neglected, left alone to die? ”

In this poor-house on a matted floor, overspread with dust, the drooping wretch reclines his languid head. Here he lies neglected and unattended and the Doctor comes,

“ A figure quaintly neat,
All pride and business, bustle and conceit.”

He carries fate and physic in his eye, a potent quack “ who first insults the victim whom he kills.” With impatience in his averted eyes he hurries over the usual queries and rushes to the door, and the drooping patient ceases to crave the help of man and silently prepares to sink into the grave. But before he dies, to satisfy his pious doubts and simple fears, so much despised by “ bold, bad men,” the poor old man needs the services of the parish Priest. As is the healer of the ailments of the body so is this comforter of the spirit, “ the holy stranger to these dismal walls.”

“ And doth not, he, the pious man appear
He passing rich with forty pounds a year?
Ah no, he is a shepherd of a different type,
A jovial youth who thinks his Sunday’s task
As much as God or man can fairly ask.”

The week days he gives to "loves and labours light," and plays the sycophant to the Squire. How can such a busy man be expected to sit by the sick man's bed and raise the hopes he is scarcely sure of within himself?

Then finally the man of many sorrows sighs no more. The villagers carry him with all reverence for burial, and the bells toll, but the busy priest is detained by weightier care, and "puts off his duty for the day of prayer."

"And waiting long the crowd retire, distressed
To think a poor man's bones should lie unblessed.
No longer truth though shown in verse disdain
But own the village life, a life of pain."

The poet admits that amid these awful miseries there often are gleams of transient mirth and hours of sweet repose. On a fair Sunday after the sermon the villagers have their amusements on the sportive green. The rural gallants, like the gallants of the cities, put on their best attire and try to win their nymphs. The sober few discuss the sermon and some talk of the work of the week, but all the time the masters have the painful sense of the waste of a fair day. These joys, however, soon disappear and village vices, such as drunkenness, overpower them and drive them from the village green. Slander quietly makes her appearance and puts an end to domestic peace, conveying to the wife the habitual crimes of her husband "for the village nymphs are not so chaste as fair." These nymphs often visit the town "and the clown's trull receives the peer's embrace." But that's not all, for when chance brings her down again to the village the peer's disease in turn attacks the clown.

The question naturally arises in our mind: Why should Crabbe make the great as guilty as the poor people of the village? Crabbe seems to have anticipated a question like this and his answer is:

"To show the great, those mightier sons of pride
How near in vice the lowest are allied."

with only this difference between them that

"These disguise too little, those too much."
"So shall the man of power and pleasure see
In his own slave as vile a wretch as he;

In his luxurious lord the servant find
 His own low pleasures and degenerate mind :
 And each in all the kindred vices trace,
 Of a poor, blind, bewildered erring race;
 Who a short time in varied fortune past
 Die, and are equal in the dust at last."

This is a terrible pronouncement and at this point the most important poem of Crabbe really closes.

The Village is to be considered as a summary of Crabbe's entire poetical work. In relation to the two longer poems that came after, it is to be taken as the author's introduction to his great book, *The Simple Annals of the Poor*. "The Parish Register" and "The Borough" are the remaining chapters of the same book and elaborate the miseries of all kinds that beset the village poor. Deficient in worldly possessions and in the properties of the mind, the villager ever tries his utmost to make the best of a life entirely at the mercy of capricious nature, who, after all, is not

"A generous mother, kind alike to all,
 Granting bliss at labour's earnest call,"

but cruel and unrelenting like Destiny itself.

The Parish Register, published in 1807, deals with the births, marriages and burials among the parishioners, a record of which is kept in the Parish Church by the clergyman in charge. Crabbe is familiar with most of the recorded cases for he seems to have officiated in all these various services.

"The year revolves, and I again explore
 The simple annals of my parish poor:
 What infant-members in my flock appear
 What pairs I bless'd in the departed year;
 And who, of old or young, or nymphs or swains,
 Are lost to life its pleasures and its pains."

This is the preface. But before he starts upon his theme, false pastoralism is attacked and Goldsmith is made a target,

In the Parish the first thing that catches our eye is the neat little cottage, the happy home of the poor peasant, whose industry has decorated its outside and the walls inside have been made beautiful and instructive by historical and Biblical pictures procured with his frugal savings. The mother takes her child to the picture of the unfortunate royal pair of France and points out that "when kings and queens, dethroned, insulted, tried," the poor man, in his happy home has much yet to be thankful for.

"There is King Charles, and all his Golden Rules,
Who proved misfortune's was the best of schools;
And there his son, who, tried by years of pain,
Proved that misfortunes may be sent in vain."

On the deal-wood shelf, beside the cuckoo-clock, rests the reading material of the unlearned rustic—the Bible, "bought by sixpence weekly saved," and *The Pilgrim's Progress*. It is a pity *The Pilgrim's Progress* is confined to the school, and as we outgrow the school so we outgrow *The Pilgrim's Progress*, which finally is lost in the mass of what is half-mockingly and half-gloomily put aside as Puritan Literature. But while reading Crabbe we recall our old school book and in a flash the likeness between the two apparently unlike men, Bunyan and Crabbe, becomes noticeable, and the reader finds that what Bunyan does by means of abstract allegory, Crabbe does by means of pictures of real life. They both record the conditions of their own respective periods; one through the experiences of a religious adventure, and the other through the experiences and adventures of every-day life. And what Crabbe says of Bunyan can almost equally appropriately be said of himself.

"Bunyan's famed Pilgrim rests that shelf upon;
A genius rare but rude was honest John:
Not one who, early by the Muses beguiled,
Drank from her well the waters undefiled;
Not one who slowly gain'd the hill sublime,
Then often sipp'd and little at a time;
But one who dabbled in the sacred springs
And drank them muddy, mixed with baser things."

The cottager, in the Parish, has laid out a small garden of vegetables and flowers where on Sundays "meet and rejoice a family of friends;" they speak aloud, all at the same time, are happy and are free.

Such a home built with industry and frugality, a home of innocence, of laughter and love, is indeed a spot of brightness and sunshine in the surrounding slum life in the Parish. Every evening in the infected row of houses the sot, the cheat and the shrew meet and

" Riots are nightly heard : the curse, the cries
Of beaten wife, perverse in her replies.
While shrieking children hold each threatening hand
And sometimes life, and sometimes food demand.
Boys in their past stol'n rags, to swear begin
And girls, who heed not dress, are skill'd in gin."

This being the general condition of the poet's parish it is not surprising when we are told that most of the baptisms in the parish church are irregular baptisms, that is, of children not born in wedlock. It is no use disturbing our sense of moral security and repose by illustrations, but it seems hardly fair or charitable to pass by the miller's daughter and not notice her beauty.

The miller was proud of his fair daughter and the inevitable young sailor thought "the miller's maiden is a prize for me." The miller, like shrewd fathers in all ages, wanted to see the sailor's purse before granting his suit. "Revenge! Revenge! the angry lover cried," and sought the nymph and said "Be thou now my bride." She became his bride but no priest could be moved "to bind in law, the couple bound by love," and enticed by the trim lad the maiden "gave—not her hand—but all she could she gave." William conveniently leaves the country to earn money abroad and the baby comes, and the angry miller turns the miserable mother and the new-born one out of his house.

The world, where such babies are in abundance, "born of mothers never wed," is relieved however and made endurable by occasional glimpses of kindness and love and also of humour. An orphan girl receives a mother's love and care from the pious mistress of the school;

and the gardener, in harmless vanity of professional knowledge, would christen his children in Botanical names. Their first child they named Sonisera, and

“ If next a son shall yield our gardener joy
Then Hyacinthus shall be that fair boy,
If a girl, they will at length agree
That Belladonna that fair maid shall be.”

In the list of marriages there are some interesting cases. Old Kirk withstood all the cunning snares of young girls in his youth but “ at sixty led a blooming bride ” and “ stood a withered elder at her side.” “ A sly old fish, too cunning for the hook,” at last gets entangled in the artful coils of his own maid-servant. But old Kirk begins to sicken in spirit to find the cherished fruits of his life-long labour and stinginess being wasted by his beautiful bride in frivolous entertainments of her young cousins—of either sex—. In anguish and despair he gets his will drawn up but the bride’s tears melt him again : “ Thou shalt rule me still and see thy cousins,—there! I burn my will.”

The next pair is an ancient bride and a young bridegroom. One must be an experienced pilot, says Crabbe, to sail with a young wife on life’s tempestuous sea.

“ But like a trade wind is the ancient dame
Mild to your wish and every day the same;
Till every danger in your way be pass’d
Then gently, mildly breathes her last;
Rich you arrive, at port a while remain
And for a second venture sail again.”

Lucy Collins makes the greatest mistake of her life when she rejects Stephen Hill, the coarse but sober and frugal swain, and accepts the idle coxcomb and fop, footman Daniel; but after her ruin, she runs back from her friend in town to her old lover Stephen—“ was chidden first, next pitied, and then fed ”—“ Then sat at Stephen’s board, then shared in Stephen’s bed.”

Instead of enumerating more cases of this kind we had better pause to enquire into the nature of this relation between young men and women which ends in the birth of natural children and in the ruin of young unmarried mothers.

It is easy to accuse Crabbe of having failed to depict what is usually called Romantic Love. But Romantic Love seems to be somehow associated with elevated life and love becomes a sacred flame. And elevated life is a sort of repressed life in which the energy of desires has been turned to nobler directions under pressure imposed upon life by agents external to itself. The sublimation of Lothario's passion into charity and devotion towards Fanny Price and her rustic husband is a case in point. But life in natural conditions is only a series of desires which, in most cases, are only the demands of the flesh. Introduce the light of civilisation in life and education, a sense of religious and social fear, that is, fear of God and of the neighbour, and the barbarian of fleshly instincts and desires is transformed into a decent citizen. So love which to the barbarian meant possession of a woman means to the romantic citizen merely a sigh or a sonnet. Crabbe's men and women as they appear in the first three poems are yet too far down in the scale of life to be romantic in their attitude to life or to exhibit love's romantic possibilities. They are ordinary men and women totally uncared-for, unacquainted with teaching of any kind and ignorant of any other guide but their own desires. To impute any romantic motive to these people would be anomalous, and certainly inconsistent with the phase of realism Crabbe introduced in literature.

Among the people buried in the Parish, Isaac Ashford, drawn from one of Crabbe's parish-clerks, brings to mind the "rude forefathers" of the Elegy. All his life he has worked honestly, and has become prosperous and happy. But old age and misfortune seem to have simultaneously come into his life. His wife dies and his children become poor and the poor-house stares him in the face. But fate saves from horror and ignominy "a wise, good man, contented to be poor."

"When Fielding was birds-nesting, and Smollett was unborn" Addison's *Coverley Papers* are said to have been laying the foundation of the English Novel of real life. After nearly a hundred years comes Crabbe with his *Parish Register*, doing for the Novel of real life in the 19th century what the *Coverley Papers* did for that of the 18th.

Castle Rackrent (1800) definitely shows a newer line of development. John Galt is not even heard of before 1820, and *Our Village* begins to appear only in 1819. The real 19th century novel of country life comes still later. *The Parish Register* and *The Village* coming out in one volume in 1807 must have had their share of influence on the literature of country life and manners that finally blossomed into a *Silas Marner* or an *Adam Bede*. About this literature of country life it has been truly said that the hand is the hand of Crabbe, but the voice is that of Jane Austen.

“ The Borough ” on a larger canvas deals with the important organised concerns of the civic life in a country town. Its church, corporation and election meetings, clubs, card-parties and theatres, its alms-house, hospital, prisons and schools, its various professions and trades, religious sects, inns and players—nothing in the life of the Borough escapes Crabbe’s observant eyes, and these details help to create a background and an atmosphere in which a few characters, mostly selected out of the miserable crowd, are made to appear. The poet is occupied not so much with drawing their portraits as with showing the workings of their minds. Written as letters to an imaginary correspondent, the poem loses much of the dramatic effect which in any other form it would have surely had.

In the letter No. II on the Church, there is the pathetic story of the Village Girl—“ a fair, sad girl, mild, suffering and serene ”—. When her wearied parents sink to sleep, she thinks of “ one regretted youth ” and “ her tender trust.” This sailor lover, in far Greenland, develops a fever in his blood, sails for home, and the lovers meet. The unfortunate Sally has only the sad satisfaction of being able to watch over her lover’s dying hours.

The founder of the almshouse, a philanthropic merchant, and the inhabitants of the almshouse, are all drawn from life. The founder, left without wife or children, lives in poverty, and never openly gives anything to the beggars who come to his door, but helps his poor neighbours in secret.

“ It was his joy to sit alone and fast,
Then send a widow and her boys repast;
Tears in his eyes would, spite of him, appear

But he from other eyes has kept a tear;
 All in a wintry night from far he came
 To soothe the sorrows of a suffering dame."

Three letters are devoted to the inhabitants of the almshouse. Crabbe selects three characters for elaborate treatment: Blaney, Clelia and Benbow. Blaney—"that tall pale veteran!, a wealthy heir at twenty-one, at twenty-five was ruined and undone"—restores his fortune by marriage and aspires to loftier flights to vice again. Expensive singing harlots he engages and takes active interest in races and gambles enormously. In ten years, after wasting all the money, he finds he can neither dig nor steal. Employment is found for him in the West Indies where, to his great delight, he realises that there is "vice in all soils and charms in every race." But a relative dies and Blaney becomes "an heir to one who never heard his name."

"To vicious pleasure he was still inclined
 But vice must now be season'd and refined;
 Beauty alone has for the vulgar charms,
 He wanted beauty trembling with alarms.
 His was no more a youthful dream of joy,
 The wretch desired to ruin and destroy;
 He bought indulgence with a boundless price
 Most pleased when decency bow'd down to vice,
 When a fair dame her husband's honour sold
 And a frail countess play'd for Blaney's gold."

These and his more refined and expensive luxuries, and the death of his wife make him poor again and Blaney applies for a seat in the poorhouse.

"'T is true," said the manager, "the fellow's quite a brute—
 A very beast; but yet, with all his sin
 He has a manner—let the devil in."

Here he meets Clelia, now faded and old, and the congenial spirits talk about their past experiences and make plans for future exploits. Clelia is a study of a character which can stand comparison with the best creations of the great masters. It is a sketch too long to quote. The skill of the artist in revealing the psychological subtleties

of the character cannot be adequately shown in quotations. A picture like this is best be read in Crabbe's own language.

Among the poor of the Borough Ellen Oxford shows more convincingly than perhaps any other character in literature the power of the heart to grow and retain its inner goodness in spite of evil. Ellen's father dies and the mother "takes another mate." But the second marriage proves unhappy and the mother dies. Ellen is a girl of twenty now and in these days of her bloom and health and youth, one much above her, offers her his troth and love. The lover takes advantage of her simple trustfulness and when he is told of the disgraceful situation he has brought her into, Ellen marks indifference on his face. A girl is born and Ellen is expelled from home. "One day" says Ellen, "I from my window saw his blooming bride, and the seducer smiling at her side." Ellen's girl promises to grow up a beautiful maid but her mind does not develop: she remains an idiot. Ellen submits:

" Oh! 'tis meet and fit

In all we feel to make the heart submit."

Then a sober master of a decent trade, overlooking her past errors, offers to marry her. They marry and have several children.

" Pensive by nature he had gone of late
To those who preach'd of destiny and fate,
Of things fore-doomed, and of Election-Grace,
And how in vain we strive to run our race;
That he who feels not the mysterious call
Lies bound in sin, still grov'ling from the fall."

So coming under the influence of these Methodist preachers the husband loses hold upon himself and commits suicide. One of their boys is hanged:

" On his graceful neck
That chain of jewels may be proud to deck,
To a small mole a mother's lips have pressed
And there the cord—my breath is sore oppressed."

Another boy is drowned—a seaman in a hoy,—leaving behind him a numerous race whom Ellen teaches to rely upon their Heavenly Parent.

“ Now her idiot girl begins weeping in pain—she and that sick-pale brother ”—but they both die.

The sins of the children are visited also upon the poor mother. The parish aid is withdrawn, but Ellen finds subsistence by keeping a small school for children.

“ To be of use

Would pleasant thoughts and heavenly hopes produce;
I loved them all; it soothed me to presage
The various trials of their riper age,
Then dwell on mine, and bless the Power who gave
Pains to correct us, and remorse to save.”

A fresh trial comes upon her now : she loses her eyesight ; but

“ My senses fail not all; I speak, I pray;
By night my rest, my food I take by day;
And as my mind looks cheerful to my end,
I love mankind and call my God my friend.”

From the little that we have been able to see of the depravity of life painted in *The Village*, *The Parish Register* and *The Borough*, which together constitute the more important part of Crabbe's poetical works, we open our eyes in amazement and awe, and our attention is turned to the problem of Evil in life. We are often made to believe that immorality is a poison and morality is its antidote, an occasional dose of which, in the shape of a Sunday Sermon, will make us all good. Among religious people Evil is still associated with Adam's transgression, but in our more reasonable consciousness we have succeeded in bringing together economics and immorality, and poverty is pointed out as the primary source of all our misery.

Some of Crabbe's men and women are given the chance to taste comfort and luxury, and in consequence they become faster still in their way of life, and hurry on more rapidly to ruin themselves as well as others. The environment in which these men and women live and move is a product of many forces which ultimately shape human destinies. In this world of Crabbe physical, moral and social forces all make towards evil which mercilessly frustrates all possibility of man's happiness. Actual material want directly makes but an insignificant contribution

to human misery. Otherwise the happy and beautiful home of the poor peasant would be an impossibility. As a matter of fact these almost pastoral cottages point to the conclusion that happiness can be ensured for one who is honest, industrious and frugal. The evils of poverty come largely

“ From want of virtuous will,
Of honest shame, of time-improving skill;
From want of care t’employ the vacant hour,
And want of every kind but want of power.”

In the house of the mother-gossip we find

“ No wheels for either wool or flax
But packs of cards—made up of sundry packs;
Here is no clock, nor will they turn the glass,
And see how swift the important moments pass:
Here are no books, but ballads on the wall,
Are some abusive, and indecent all.”

And on the table is an ample flask.

Here we find forces beyond the grasp of calculators and economists : it is indeed poverty or as they say inadequate distribution of wealth, but a poverty in life of far weightier things than mere bread and butter. The social tragedy of his age is ascribed by Crabbe not to any material need, but to ignorance, perversity, to a crushing sense of inferiority in the people, and to persistent callousness and want of real sympathy in the people of the town. The people suffer more through neglect than through poverty and the mind is starved much more than the body. This discovery of a vital relation between character and social environment makes Crabbe the pioneer critic of social institutions and a quiet reformer.

Between the Revolution in France and the first Reform Bill in England we have romantic literature and the beginnings of the literature of Democracy. Crabbe has little in common with the Romantic but, is it probable that one, so much concerned with the people, can be indifferent to the democratic aspirations of his time? Of course we cannot put any propaganda to his credit : he does not spread democratic germs in sealed bottles to countries beyond the seas nor in ashes blown about by the wind : nor is democracy established among

glorified shepherds and shepherdesses. These can be citizens in a Pantisocratic state or dwell in "a wreck of paradise," but will be found too airy to fit in with life as we know it. Crabbe tries to find out if there is, after all, anything stable and substantial with promise of development in the debased human material that he finds all round him. His people make mistakes and fall, but Crabbe notices that their falls are like slips on the road at unguarded moments; and that their redemption lies in their own endeavour. He does not deal in cheap democratic slogans like some of his more effective romantic contemporaries, but he certainly touches the source of all democracies when he asserts that man's political, social, material and spiritual salvation depend to a very great extent on the efforts of man himself. In brief this contains the substance of the entire mass of Democratic Literature.

The last volume to be considered is the *Tales* of Crabbe. They form the most entertaining part of his work. Written in heroic measure, in an unpolished diction, they have a simplicity and directness specially remarkable when the characters themselves narrate the experiences of their life. We are not, however, to judge these tales by the standards of the art of the Short-Story of today. The Short-Story is characterised as a bead of light in which we are to see one aspect of the author's vision of life. It is said to be an emotion, a poetic idea, replaced in beautiful miniature, a one-act drama, rounded and complete, a self-luminous bubble. Crabbe's tales possess none of these characteristics. They are dramas in one act, rounded and complete, but not one-act plays, not bubbles of emotion nor poetic ideas. Crabbe would not translate facts of human life into poetic ideas at all and so avoid facing the truths of life. His tales are episodes from the great human epic. The background is the same as in the earlier poems but the actors are of a slightly higher type, and their love is not merely lust. They often exhibit a mind capable of the finer emotions and sentiments and so become objects of psychological interest.

Joshia, in the *Frank Courtship*, with a steady and classic strength of mind curbs the vanity of a young girl of romantic notions and finally wins her for his bride. Dina's mind in *Procrastination* changes from love for a man into love for gold and fineries, and when after years of absence the lover appears "wrecked in two," the cold calculating woman speaks of having all her care to fit her mind "for

other spousal and die resigned." When she finds pensive Rupert at a humble door, there is a conflict in the woman between pity and pride and she takes the way of the Levite: "She cross'd and pass'd him on the other side." The "parting hour" reminds us of Tennyson's *Enoch Arden*; the *Patron and Lover's Journey* are said to be based on Crabbe's own experience. *The Brothers*, *Edward Shore*, *Confidant* they may not reveal the "Moment Eternal" in a flash, but they will surely move the reader some time to laughter and some time to tears.

It is interesting to trace the various tendencies that contribute to the making of literature. Realism is a tendency and people of wide and profound scholarship may be able to connect the realistic writers of to-day with Chaucer; I can but guess how realism which we find abundantly in Crabbe, after a perilous course, has again become a pronounced force in modern literature. For this purpose it will be necessary to consider Crabbe's poetry along with the works of Wordsworth, the poet of the late 18th and early 19th century, and so a contemporary of Crabbe, of Thomas Hardy, the late Victorian novelist, and of the present laureate, who in some of his poems has made use of what we may call Crabbean Realism.

For both Wordsworth and Crabbe the object of continued attention is reality which they both acknowledge as the proper subject to be treated of in poetry—with this difference that Crabbe never attempts, nor does he consider it worthwhile to attempt, to penetrate the hard facts of life which absorbed his mind, and having no capacity for philosophical speculation cannot find an opening into that super-sensible world which Wordsworth has so often spoken of in his poetry. It is not that Wordsworth is ignorant of the deplorable condition of the people. He speaks of "Nature's holy plan" but sadly deplores "what man has made of man." Before the close of the year 1794, the whole of the *Guilt and Sorrow*—a harrowing tale of poverty, agony and crime, a typical Crabbean subject, has been written and in his tragedy—*The Borders*—1795-'96, his experience seems to have been summed up in a single line—"The world is poisoned at the heart"—. But the failure of the prospects of a general millennium and also perhaps of his own private millennium with the girl of his choice, bring about within him a sort of mental somersault and instead of focussing his attention on men and women, on their joys and sorrows,

and on their occupations and adventures, Wordsworth retires, a lost leader, indeed, to his mountain solitude and begins to brighten up everything around him by the light of his own mind, and the shepherd so enlightened, becomes "in size a giant, his sheep like Greenland bears." "His form hath flashed upon me glorified": "A solitary object and sublime." Of course Wordsworth has enlarged the realm of poetry and has learnt to find "central peace, subsisting at the heart of endless agitation," but at the sacrifice of his native realistic bias. He reacts as vehemently as Crabbe against the 18th century poetry, with respect both to form and matter, but circumstances and his absorbing interest in the creation of a convincing philosophy of idealism to counteract his realistic tendency make him ultimately what he is, a mixture of several tendencies, and not a pure representative of any one in particular. The Wordsworth we are more familiar with is the poet of the "Lyrical Ballads": but the real Wordsworth will be recognised now in the poet of the "Prelude" and the "Excursion"; and the Realism of the Prelude and of the Excursion, in its essential aspects, is the Realism of Crabbe.

Hardy's tragic apprehension of the world is a product of several influences working in his mind at the same time. Struggle is pointed out by science, as an unavoidable condition of life in the natural world, and in the life of man Hardy notices the struggle for wealth among the powerful and for mere existence among the poor. Small farmers, labourers and other inhabitants of the little market towns of Wessex—some of whom like Hardy and his heroine Tess can trace their descent from noble ancestors—are fast decaying as a consequence of the rise of industries. These are vital influences and, no doubt, they form the major premises and the minor premises; the individual cases, he gathers from his own experience, but also from Crabbe's narratives with which Hardy seems to have made himself familiar.

Hardy's Wessex people like those we find in Crabbe's country, fall into two identical groups: the poor people and the people of the lower middle class. Misery and suffering fall upon the members of both these groups without any discrimination in Crabbe. But the poor people in Hardy are indeed a set of bonfire-makers and ale-bibbers, having no cause of vexation in their life except a superstitious fear of some great powers which, they suppose, surround them. Ambition

and desire do not disturb the even tenor of their life. It does not mean, however, that their desires are sublimated or that they have renounced desire by an effort of the will. They are only ignorant of things beyond their ken, and so are free from desires, and their forlorn stupidity has also made them incapable to form any desire. On the other hand they comply readily with the ordinance of nature which demands a willing acceptance of and a ready submission to all that is traditional and primitive. They are only a living background, one with nature. There is no tragedy in their life: their ignorance is bliss.

Tragedy, however, falls upon people who are a little higher in status like the characters in Crabbe's tales. In these men and women the disintegrating forces of the New have entered and desires are formed and the God of the primitive, as it were, takes exception to their waywardness and breaks them into pieces. Hardy, in fact, gives a philosophical explanation to the tragic facts of life while Crabbe merely paints them.

Crabbe deals with the mind of mediocrity, and so his men and women become merely pathetic in their suffering, while Hardy's heroes and heroines possess stronger minds and with a militant discontent attain tragic proportions. Both Crabbe and Hardy trace the source of man's misery to man's own mind and they find the remedy also there. To Crabbe man is, his passions and desires are, and nature is not much of a help, as an unfriendly but unavoidable neighbour; so we find poverty, sorrow and misery in life. But man can better his condition by enduring the cruelties of nature and by exercising control over his passions and desires, by being frugal and industrious and by reliance on God and trust in man. Here there is no challenge, no conflict but an acceptance in the spirit of Job, of the joys and sorrows of life, which will ultimately resolve themselves in God. This is the attitude of the devout, godfearing priest who has no explanation nor any philosophical remedy to suggest but self-control, fortitude and hope, ordinary cures for the ordinary ills of life.

In modern poetry Crabbe's influence is most pronounced in some poems of Masfield. *The Window of By-Street* with its incidents and characters can be put into any part either of the Parish Register or the Borough, and they will be of the same piece. Among

the poor of the Borough there is a character Abel Keene. His story is a story of conversion. *The Everlasting Mercy* is the story of a conversion, and conversion of Saul Kane. No conclusion need be drawn from these resemblances, but one can only suggest that it will be found profitable to open the pages of Crabbe's poems from time to time while reading the Modern Realists.

We agree with Byron who declares Crabbe to be—"Nature's sternest painter yet the best"—.

A NOTE ON MODERNIST POETRY

By MR. BHAWANI SHANKAR, M.A.

The initial reaction of many who for the first time open a volume of modern verse will be a feeling of bewilderment. It is like going to a friend to spend a few hours in pleasurable companionship, only to find that your friend has not only left the old, familiar house, but that it is now peopled by strangers whose disreputable jargon gives you an uncanny feeling. You might very well retrace your steps and never think of the matter again. But the more curious may pause and enquire. The sheer strangeness of it all may be a challenge; and the eager student would not be discouraged by a technique or substance of poetry which is not familiar to him.

To the uninitiated, the modern poet does present an alien appearance. In his accents one does not recognize the old minstrel who soothed the cares and beguiled the sorrows of man or the bard who sang of ancient glory. And yet no poetry can annihilate the past. Even the more modernistic poetry has its points of contact with the old. Critics have discovered in it echoes of Confucius, Dante, Catullus, the Troubadour poets, as also of Donne, Crashaw, Webster, and Chapman.

Where the resemblances between the old and the new are more easily noticeable, the development in the technique of new poetry has been so rapid that these resemblances lose much of their point in critical elucidation.

So long as poetry aims at being communicable and employs an intelligible language as a means of expression, it is subordinate to the same laws that shape and condition the growth of an organism. The language is a means by which the inner experience of the poet is linked with an outer process which governs all forms of life and social phenomena. In other words, poetry cannot completely isolate itself from life or its social conditions. Even the purest of pure poetry is the product of an imagination the relationship of which can be established, through the poet's personality, with the external world. But it will be wrong to insist that poetry is merely the product of a social reflex. Every poem is, incidentally or essentially, a record, say, of a mood, an idea, or a sense-impression of the artist. As such, every poem may be looked upon as an integer, as an artistic whole, though from a broader perspective, it will be seen only as a moment in the perpetual movement of the historic process. This is akin to what the psychologists describe, in relation to the human mind, as a case of double personality—the ego asserting its identity now and again taking up the thread of the racial consciousness.

From the artistic point of view, recent poetry presents many new problems to the reader. One of the most important is a psychological problem. The occult and the unconscious are believed to-day to be as much a part of our mental anatomy as the digestive system is of the physical. This means that dreams and the hidden longings of the heart, the secret appetites and itches of the soul have the same validity for poetry as the more evident traits of our conscious life. Now to express what is in the unconscious layers of the mind, the poets have invented new ways of speech. An examination of these will naturally lead one into many technicalities of verse. I shall not discuss here the merits or demerits of these innovations, but the danger may be pointed out that logically a poet will be justified, according to the new technique, in selling a menu card as his latest facsimile poem. On the other hand, it must be admitted that many poets, by their technical

subtleties, have converted language from a means of statement to one of illumination.

From a social viewpoint the new poetry—by which I mean the post-war poetry—presents a strange paradox. It aims at being near to life. It distrusts the poetry of wish-fulfilment and escape. And yet it is, in a sense, far removed from life. On the one hand, it tries to grapple the realities of life. On the other, it tends to be exclusive and esoteric. It calls for initiation and a specialised training, such as are necessary for understanding algebraic signs or musical notations. Here it may be pointed out that it is a vulgar fallacy to expect or speak of art as having a universal appeal. It is on record that some African visitors to London were impressed, not by St. Paul's, but by houses running in the streets—the double-deckers. And I have known workers employed for mowing the lawns near the Taj, who were supremely oblivious of its architectural beauty. The truth is that all art presumes a certain stage of culture, of artistic discipline and exercise in those for whom its appeal is intended. So does the art of our age.

Traditional poetry had a communal origin, and so long as it retained the communal sentiment, it had a popular appeal. In England, in a measure all over Europe, the conditions that prevailed after the Great War accentuated the individual consciousness. A complex of disruptive forces appeared as a menace to society, and it certainly destroyed the individual's faith in the values he had hitherto accepted and lived by. The result was a decline in the communal sentiment and the recognition of the world as a spiritual wasteland of which Mr. T. S. Eliot's poem with that title is a tragic record. The poet's awareness of the disintegration in the social and moral ideas of our times has found varied and recurrent expression in recent poetry. William Butler Yeats says:

Things fall apart; the centre cannot hold;
Mere anarchy is loosed upon the world,
The blood-dimmed tide is loosed, and everywhere
The ceremony of innocence is drowned;
The best lack all conviction, while the worst
Are full of passionate intensity.

Ezra Pound says in a different key :

Christ follows Dionysus,
Phallic and ambrosial
Made way for macerations;
Caliban casts out Ariel.
All things are flowing,
Sage Heracleitus says;
But a tawdry cheapness
Shall outlast our days.

* * * *

Faun's flesh is not to us,
Nor the saint's vision,
We have the Press for wafer;
Franchise for circumcision.

Here is Herbert Read with an appropriate reminiscence of the war-scene :

My men go wearily
With their monstrous burdens.
They bear wooden planks
And iron sheeting
Through the area of death.
When a flare curves through the sky
They rest immobile.
Then on again,
Sweating and blaspheming—
' Oh, bloody Christ ! '
My men, my modern Christs,
Your bloody agony confronts the world.

The generation that became vocal only lately did gain a comparative intellectual poise. But even in the poetry of these younger poets—

W. H. Auden, Stephen Spender, C. Day-Lewis in England and Hart Crane and Allen Tate in America—there is much groping in the dark and a sense of incompleteness, which, however, is only saying that this poetry is very close to the realities of life.

In all modernist art there is a definite movement towards intellectuality; and if painting has surrealism, poetry too has a "cerebral" school of verse. It is because in any modern unit of society, the awesomeness of nature has been supplanted by the tremendous force of the social system. Naturally, to the modern mind a romantic preoccupation with nature appears sybaritical and in poetry savours of effete aestheticism. The art of to-day is therefore frankly intellectual, unromantic and tendentious. The intellectuality of modern art has more and more narrowed the range of its appeal. It has sharpened the cleavage between the artist and his audience. This cleavage itself represents in art the greatest crisis of our time; namely, that on one side there is a class of people sensitive, thoughtful and responsive to the larger issues of life who are receding from actualities, while on the other, there are the masses grovelling in a kind of pseudo-culture which the cinema, the radio, and a few political concessions have engendered. Some poets have attempted to avert the crisis in art by a kind of poster-poetry, full of gleaming headlines like those of a newspaper. Others wither in the isolation of their intellectual frost. But the crisis continues, and this is perhaps the greatest indictment of contemporary poetry.

It has other shortcomings too, which poetry born in a period of social disintegration is bound to have. But it has its point of interest also. Whatever its artistic validity, as a social document, it presents an excellent record of all those subtle nuances of minds sensitive to, and moods affected by fast-changing objective condition. Nor am I willing to concede that the artistic validity of modernist poetry is contemptibly meagre. And for two main reasons: first, there are those who have shared with these poets with whom they have grown up some of those crises in which the soul seems to be to be tossed about in a non-dimensional space and the dream and the fact lose their edge. They find in this poetry an extension of their own sensibility and a spiritual reassurance, the value of which cannot be appraised by those who have been immuned from such experience. Secondly, among the

younger poets there is a growing realization of a radical social philosophy. As for instance,

I say, stamping the words with emphasis,
 Drink from here energy and only energy,
 As from the electric charge of a battery,
 To will this Time's change.

Addressing the senses, the eye and the ear, Stephen Spender continues :

Leave your gardens, your singing feasts,
 Your dreams of suns circling before our sun,
 Of heaven after our world.
 Instead, watch images of flashing brass
 That strike the outward sense, the polished will
 Flag of our purpose which the wind engraves.
 No spirit seek here rest. But this : No man
 Shall hunger : Man shall spend equally.
 Our goal which we compel : Man shall be man.

The poets realize that poetry should be imbued with the spirit of a comprehensive social philosophy. Humanitarian sentiment which gave Victorian literature a sociological bias is not enough and is as unsatisfying as the Victorian philosophy of compromise. But they also know that the moral and social ideas of our times have little relevance with the social order that actually operates. Unless they coalesce, art cannot acquire vitality. And so, in a way, the failure of modern poetry is the failure of the modern times. Great poetry flourishes only when there is perfect amity between the external conditions and the spiritual aspirations of an age.

D. H. LAWRENCE AND HIS POETRY

By MR. R. N. DEB, M.A.

If we want to gather a true picture of the 20th century English intelligentsia, we can do nothing better than read *Point Counter Point*.

The genius of Aldous Huxley is purely the 20th century genius—a light bantering wit, a vivacious and sparkling style, with flashes of greatness, a valid intellectual cynicism and a perfection of finesse. The theme that he chooses is befitting his genius—the rich and careless philistine seen from all possible angles of vision. And beneath this silk-web style we feel a sense of boredom, an idea of the insignificance of life, of a noxious miasma arising out of this senseless so-called higher society. It is the real 20th century mind, where seriousness is considered as something amusing, where to suffer from continuous ennui is considered as the very acme of fashion, where talking cleverly is supposed to be the very highest watermark of culture, where man suffers from a lack of ideology and woman believes that it is her privilege to suffer from occasional nervous breakdowns and to get her due share in society, she must have a divorce or two to her credit.

All this thoughtless, vapid society has been painted by Aldous Huxley with marvellous delicacy and cleverness, with an irony and understanding almost unsurpassed. In the distant future people curious to know of the higher London society of this period, will open the pages of *Point Counter Point* and once within the portals of the Tantamount House, they will know all.

But when we think of the greatest names in modern literature we do not think of Aldous Huxley so much, nor of Galsworthy for he was of the past, and Shaw's days are numbered and Hardy was really of the 19th century; the names that stand out clearly are those of James Joyce and David Herbert Lawrence. They stand out as two peaks, far apart, jutting out of a chain, each surrounded with its own glory, each entirely different from the other.

Joyce published almost a perfect novel in the traditional manner, *The Portrait of the Artist as a Young Man*. Later he produced *Ulysses*, an epic of a single day, where the hero is an ordinary man . . . He was not satisfied with this Titanic adventure. He is writing

novels to-day in a language which he and God alone understand, and, impious though it may sound, perhaps God has forgotten it.

Lawrence stands apart. He does not represent the 20th century mind so thoroughly. He represents the reaction of a vigorous mind against the 20th century. He hates the 19th century, which he calls the century of the mealy-mouthed liars.

Lawrence has written novels which stand amongst the greatest of novels and hold their head high. It is not within the limits of this paper to speak about Lawrence the novelist. It is the Poet Lawrence who is the subject of this paper. The poetry of Lawrence has been eclipsed by his novels: such is the sad fate of English poetry . . . In the preface to the Collected Volumes of his poetry Lawrence says . . . "It was only after my 20th year that my real demon would now and then hold me and then shake out more real poems making me uneasy." Demons are interesting fellows, and the demon who was in the habit of shaking out more real poems from Lawrence was a particularly fascinating specimen of that type of creatures. He was a savage, neurotic demon. For some of the poems of Lawrence are vulgar, wild and brutal. At times, the demon becomes prosaic and we have flat and dull pieces, fit for a school boys' exercise book. There is hardly a single good poem in the *Nettles*. He has a large amount of poetry and his complete works cover a period of almost thirty years. They are the record of a life burning with the white heat of passion. Fortunately the poems are arranged chronologically, and this arrangement helps us to understand the development of this lonely, yearning soul.

So charming and so picturesque are his early poems that one is reminded of Keats. Perhaps they lack the subtle and mellow music of Keats, but there is the same richness of imagination and the same love of nature for its sheer beauty. The flame of poetry burns with greater brilliance when he sees nature in all its pristine loveliness. There is no mysticism about it. His poetry scintillates with coloured imagery, for Lawrence is a water colour artist. The nuances of colour enchant him. He is spellbound by it. He sees the quivering white shadow of the dog in the pool, the purple sky, the green fire, and the multicoloured flowers at his feet. He loves colour with the luxurious love of an oriental lover. The vision of nature in all its radiant beauty

inspires him, intoxicates him. His poetry is likewise intoxicated. For no poet has put so much of his soul in his works. That's why Lawrence is so refreshing, so readable, so unlike of much trash sold in the name of modern poetry.

It is true we do not have in him the dreamy quality of Yeats or the faery quality that we get in the poetry of Walter De la Mare. But we do not get either the effminacy of Flecker or the chaos of T. S. Eliot. He has a robust, masculine grace, and a grandeur which we miss almost in all other modern poets. For Lawrence is the poet of passion. Whatever he wrote, he felt passionately, felt it from the very depths of his heart.

Considering the poetic wealth of English language it is no small achievement for a boy of less than 20 to strike a new note in it. The intensity and energy of his soul makes his nature poetry new.

The common flaunts bravely, but below from the rushes
 Clouds of glittering kingcups from among the bushes
 There the lazy stream pushes
 His bent course mildly; here wakes again, leaps, laughs,
and gushes
 Into a deep pond. An old sheep-din
 Dark overgrown with willow, cool with the brook ebbing
through so slow.

Naked on the steep soft lip

Of the turf I stand watching my shadow quivering to and fro.

For suggestive power and sheer beauty the lines are almost unsurpassed. They have the suggestive charm and delicacy of landscape by Claude. Surrounded by this beauty, the young poet at times feels a sense of melancholy. "What if the rose flower shrivelled and I was gone." He is puzzled, he is sad. Life flies just as water runs, faster runs faster." But the young egoist cannot be melancholy for long. "How splendid it is to be substance, my shadow is neither here nor there,

But I, I am royally here.

As pure nature poetry these lyrics stand very high. The painter in Lawrence has come to the aid of the poet. They work in happy harmony.

" The woodbine creeps abroad
 Calling low to her lover—
 The sunlit flirt who all the day
 Has poised above her lips in play
 And stolen kisses shallow and gay
 Of pollen now has gone away—
 She woos the moth with her low sweet word;
 And when above her his moth wings hover,
 Then her bright breast she will uncover
 And yield her honey drop to her lover.

This has the haunting music of Coleridge at his best. Now and then however a turn of phrase or an image betrays the neurotic. "Then her bright breast she will uncover" or "the water holds me and so close and it rolls me, enfolds me as if it could never flood me enough." Images like these are scattered all over his early poetry. The demon knocks feebly at the doors of the subconscious. Poetry as yet does not gush forth.

There is a large number of lyrics of such beauty. These lyrics can be placed by the side of the greatest lyrics in the language and would not suffer by comparison. For their rare imagery, for their thought, and some times merely for their simplicity and music, these poems will find a place along with the very best in the language.

" When I awoke the lake lights were quivering on the wall
 The sunshine swam on shoal across and across.

The subtle alliteration and beauty lift these lines much above the common-place.

" Ah through the open door is there an almond tree
 Aflame with blossom.
 Among the pink and blue
 Of the almond flowers
 A sparrow flutters

These lines are from the later Lawrence. It is the magic of Heroshide imprisoned into words that glow with the the fires of spring. Lawrence has captured the real secret of spring, the soft joy that blesses Mother earth.

Generally the later poet has not written such lyrics. As he grows older the neurotic tendencies become more pronounced. When we read the early poems carefully we find images which forebode the future. The demon, a baby at first, grows into a roaring giant bent upon creating havoc. Most of the poems have a feverish demoniac energy; though there is no occasion for it, most of them have a brutal suggestion.

“ Under the dark red boughs of jewels red
 In the hair of an Eastern girl
 Hang string of crimson cherries as it had bled
 Blood drops beneath each curl.

Blood drop is a bold metaphor, as bold as it is beautiful. It also reveals the Lawrence mind—the fondness of red and blood. A few more images picked up at random will illustrate the point better. “The sow was grabbing her litter with snarling red jaws.” A savagely realistic image. It has not much of beauty as the former has. Still later we get a male throng booming and bruising until it had drowned the other voice in blood.” Here there is not even an apology for poetry. It is a brutal happening, brutally described. The word blood comes again and again even when there is no occasion for it. “Slowly back in my blood the kisses are singing.” The heman has leaped up and is dancing its wild dances. The demon joins the heman. Both combine. True poetry gushes forth. We have the poem *Virgin Youth*. Lawrence is 21. Something stirred in him. What is this new urge? Life is futile unless he fulfils this urge. He must know woman. Almost in despair he cries out—

Traveller column of fire
 It is vain.
 The glow of thy full desire
 Becomes pain.

Here is the first real outburst. Lawrence retains the beauty of his language. One feels like quoting at great length from the poem. But the poem is unquotable. It is the key to the real Lawrence. The poem is like the bursting of an overflowed damn. The floods of passion sweep us, overpower us. For such poems Lawrence stands alone. In him there is an inherent masculinity, a whirlwind of passion. The true 20th century epic will be the *Waste Land* in

which we get into a morass of confusion maybe. We meet with a line of unusual beauty and philosophic vision and then again we have to plod wearily to have a glimpse of the fleeting muse of poetry. A new vision is before us,—a barren desert with perchance an oasis almost half hidden from the view. It is truly a waste land. It is against such poetry that the poems of Lawrence act like a heavy weight.

Even now there are lyrics which have all the simplicity and magic beauty of language. *Gipsy* is a poem which can stand easily with the very best of W. H. Davies's for its native simplicity and has certainly more power. But the sensual poet is visible again and again. All the poems are not necessarily vulgar, but even to the most commonplace subject he gives a certain unethical twist. The lotus becomes naked in "the finest fashion" and then offers "all myself into this woman who loves me."

This is one of the peculiar qualities of Lawrence's poetry. The unusual always fascinates him. His imagery is equally unusual. He sees the green fire lit on the soil of the earth, or 'people sleeping like rounded pearls' or the moon rising from the darkness forcing its way from the 'shut lips of darkness red.'

As if from the womb the slow moon rises, as if the twin-walled darkness huddled,

In a night spasm of birth.

He sees the open sky as a cat's distended pupil that sparkles with little eyes, or the "splendour of the torches of darkness."

This plethora of unusual imagery at times makes his meaning obscure. "The green night baying of the dog star" as an image is perhaps very lovely but it is equally obscure.

The painter again sees the unusual colours "Come up thou red thing and be called the moon."

Such images are endless. It would be difficult to find a single poem which does not contain images of this type. Sometimes owing to the overornate imagery the poetry loses its simplicity and beauty. It is like a rich Moghul dish, sometimes like an over-ripe mango. Speaking of the dead mountain lion he says

"And stripes in the brilliant frost of her face sharp fine dark face.
Dark, keen, fine rays in the brilliant frost of her face,"

There are some more absurd lines. Here there is no attempt at imagery. It shows a childish pleasure in parading his inexhaustible vocabulary.

“ Now he is a jack ass a pack ass, a donkey, samaro, burro, etc.” This is rich vocabulary but not poetry. These faults creep up in Lawrence because of his excessively intense nature. He was a Rockefeller with his words: he scattered them simply for the pleasure of it.

This fault remains almost till the end. It takes the shape of repetition. It is true, in his hand repetition has sometimes wonderful power.

“ O lovely lovely with the dark hair piled up as she went
deeper and deeper
 Then rose shallower and shallower
 With the full thighs lifting of the wadder wading shore
waves.”

The alliteration in these lines is pretty obvious. Otherwise we feel the effort in them

‘ Wader wading shore waves ’

What remarkable onomatopoea. Whoever has walked in thigh deep water with his clothes soaked and heavy, he will recognise the dull rustling of the wet clothes and the efforty footsteps.

Then suddenly burst upon us lines of supreme beauty where the effort has melted into evanescent music and a mysterious, suggestive beauty, and the very attar of poetry remains.

“ and the shoulder pallid from the light of silent sky behind
 Both breast dim and mysterious, with the glamorous kindness
of twilight between them.

In the large gallery of English poets many have tried to reveal themselves in their work. None has revealed his very innermost self so unequivocally as Lawrence has. There is no hide and seek in him, no riddles, no cross-word puzzles. We do not worry over the poet's moods. When we read the sonnets of Shakespeare we wonder whether these are the keys to Shakespeare's soul or whether these are mere literary exercises. We write volumes about the dark lady and the fair boy and still they remain dim and mysterious figures; in fact we never get a full view of them. If Lawrence, however, had a dark lady we

would have known all about her, known her from within, would have known a little more than is either necessary or decent. Lawrence was a mystic and an egoist—two purely contradictory beings. To him the doubt of before and after is useless; the present is every thing.

We shall not look before and after

We shall be now

We shall know in full

We the mystic now . . .

He believes in a full blooded egoism like Ibsen. Even when there is unity between man and woman the ego must remain separate. It must never be lost in confusion.

And then we shall have each our separate beings

And that would be pure existence, real liberty

. . . It is in unutterable resolvedness that one is free

Not in making merging not in similarity.

This idea of the real separateness of the ego from the world of action is the dominant note of his last poems.

Thus far it is easy to understand Lawrence. But there is a mixture of opposites in him which is difficult to comprehend. He has written lyrics like filigree work as if woven out of gossamer threads, lyrics which waft the fragrance of myrrh and frankincense: and side by side he has written poems of loathsome sexuality and egregious brutality, *e.g.*, the poems on tortoise. We are surprised when we get the repetition of certain images and certain words. The words 'gash,' 'blood,' 'fire,' 'dark,' 'flame,' 'red' and curiously enough 'moon' occur again and again, in his poetry.

'The cat who laps blood knows

The soft welling of blood: invisible beyond bone or metal of bone'
Always heredity has an important part to play in the life of man. It had a curious influence over Lawrence. We know that Lawrence's father was a miner and drunkard. Perhaps he forced his mother's voice to be drowned in blood. He was the son of his mother, but he had the blood of his father in his veins. He had a good deal of his father whom he hated and he was made by his mother whom he adored. His mother was a frail tender lady who loved the calm and the beautiful things—the moon for instance. By the time Lawrence was

corn (he was the fourth child) the little affection that once subsisted between the husband and the wife had vanished. The father loved the tankard at the inn, the mother loved her extremely nervous son with all the intensity of her passionate, poetic temperament. Lawrence too adored her in turn.

His love for his mother is so great that his spirit desires to be one with her. Consciously it is impossible for him. Subconsciously he is constantly thinking of it. He can be a part of his mother's flesh. And hence we get the word 'darkness' and 'womb.' The idea is haunting him. He sings

My little love my dearest
Twice you have issued me
Once from your womb, sweet mother
Once from your soul.

This is one of the loveliest lyrics written by any poet on his mother. There is another equally beautiful poem where he bids farewell to her. His mother was always before his mind, the calm, serene, tender lady. His father was too much of this earth, but she was an angel something pensive, ethereal, heavenly. He always seeks something which should resemble his mother, her calm face glowing with love. The moon is the object in which he finds all these qualities, something sensuous yet spiritual, something calm and luminous. The moon is his mother image. That is why he has written the most emotive moon poetry. Few others have written so much about the moon, none has written about the moon with such wistful passion and so much beauty. It is not the moon the queen of night, it is his first love, his only love; it is the symbol of his mother.

A few quotations would not be altogether out of place.

The mistress and mother of our bodies
Of our nervous consciousness and our moist flesh.

It is exactly this feeling that Lawrence sought everywhere in woman, that warm deep feeling of maternity, the feeling that he got from his mother's love.

I will quote a whole poem on the moon which I feel is one of the finest of its kind in Lawrence's work.

" You beauty, O you beauty
 You glistening garmentless beauty !
 Great lady, great glorious lady
 Greatest of ladies,
 Crownless, jewelless garmentless
 Because naked, you are so wonderful than any thing we can stroke
 Be good to me lady great lady of the nearest heavenly mansion.
 Now I am at your gate you lady of nakedness
 Now I must enter your mansion and beg your gift
 Moon O moon great lady of the heavenly few.
 Far and forgotten is the villa of Venus the glowing
 and behind me in the gulfs of space lies the golden house of
 the sun
 and six have given me speed and God speed
 kisses of four beautiful lords, beautiful as they held me to their
 bosom in farewell.
 And kiss of the far off lingering lady who looks over the distant
 fence of twilight.
 and one warm kiss of the lion with golden paws.
 Now lady of the moon, now open the gate of your silvery house
 and let me come past the silver bells of your lovers and cockshells
 into your house, garmentless lady of the last great gift.
 Who will give me back my lost limbs
 and my lost white fearless breast
 and set me again on moon remembering feet, a healed
 whole man, O moon,
 Lady of the last house down the long long streets of the stars
 be good to me now, as I beg you, as you have always been good
 to men
 Who begged to you and gave you homage
 and watched for your glistening feet down the garden path . . .

This is from his " Last Poems." Some more lines from the same volume will show how intense are his moon poems.

And who has not seen the moon
 Who has not seen her rise out of the chamber of deep
 flushed and grand and naked . . .
 seen her rise and throw

confusion of delight upon the wave
littering the wave with her own superscription
of bliss, till all her lambent beauty shakes towards us,
spread out.

All through these moon poems we find that the words are surcharged with passion, the passion as if for some human being; but the passion has a sense of reverence, a spirit of homage.

The word 'complex' of late has become unfortunately hackneyed, and journalistic. But for once I would have to borrow it. Lawrence suffered from the projection complex. We all love those things in later life which revive the memory of things which made a deep impression in our childhood. We love our parents in childhood. In later life generally we love those people most who have some resemblance with our parents. It is a wise parent who leaves fussing over the child after it has attained the age of puberty. All parents, however, are not remarkable for their wisdom. They forget that the child has an individuality, and has finally to face the world alone. Lawrence's mother was such a parent. All her love which should have gone to her husband was focussed on her understanding and nervous child.

A deep impression of the delicate and tender mother was engraved on his self. When she died there was a huge void in his life. He never could enshrine another image there. Perhaps the life of Lawrence would not have been so tragic if his mother had not loved him so intensely. Perhaps the case of Lawrence becomes a little more clear if we take the example of another genius Nietzsche. Nietzsche was a devoted son. He adored his mother with the devotion of a strong man. Still he says "Thou goest to woman take along thy whip with thee." 'God that she is necessary,' cries Lawrence in despair.

It is an irony of fate that these two who worshipped their mothers should speak harshly of woman. They were obsessed by the projection complex. The reason becomes clear if we ponder over it a little. Nietzsche or Lawrence did not hate all women. Lawrence says:

"I learned it all from Eve,
The warm dumb wisdom

She is a quicker instructress than years
 She has quickened my pulse to receive
 Strange throbs beyond laughter and tears.

In his last poems he says "any lovely and generous woman at her best and most beautiful is God."

What is the reason of the apparent cruelty in some of his poems? Both Nietzsche and Lawrence suffered from the projection complex. They sought the mother in woman and they found the Eve. Even in these poems quoted there is an emphasis on the warmth and generosity of woman, that maternal quality where the weak man finds his last haven. Nietzsche and Lawrence were both physically weak, one was a cripple, the other a weakling who died of consumption. To them mere physical union could not have been a bliss. They wanted a greater union, the union of the soul, when one is merely the projection of another, the type of union which is perhaps possible only between a mother and son, in fact a mystic union impossible in this earth.

"You are the call I am the answer
 You are the wish I am the fulfilment
 You are the night I am the day.

This is not a physical union. It is a complete absorption. He sought this; he found sex which he perhaps feared, but with which he was fascinated. It is impossible: the eyes of the boa-constrictor flash emerald fires, the jarboa knows it to be his doom, yet hypnotised he is dragged towards it. In Ibsen's *Lady of the Sea* the fish eyes of the stranger fascinates the lady, she becomes spell bound, she is almost conquered.

This is Lawrence's tragedy. He wanted that soft maternal warmth, he never found it. He becomes bitter and we find a change in his poetry.

In the early Lawrence there is a good deal of Keats. Sometimes we get the same languid melancholy in his poems. But this bitterness enters his soul. It pierces him like a shaft of steel. We see the sentimentality of the earlier poet changing into a love of the powerful and the rough. He was his mother's son but his father's seed. A gang of labourers on the piled wet timber, that shines blood-red near the railway siding enchants him. He sees the red gold

spools of the hand, the happy faces who live in their work as if they were having a happy game. The father in him becomes more powerful. The words 'red,' 'gash,' 'blood' become more frequent. In a poem of 19 lines 'blood' is repeated 11 times. The words 'fire,' 'flame' and 'wild' become as common.

His was a hectic temperament of the criminal. We feel bewildered with his morbid mind. His poetry pours out all his pent up feelings. It is like a volcano hurling out lava. The outflowing lava saves the mountain from bursting into fragments. Art is a safety valve for one's pent up emotions. Art saves Lawrence from insanity. Poetry snatched him away from the gallows.

This cruel quality makes him so revolting yet so fascinating. It converts a good deal of his later poems into mere erotic sex poems. The poems that deal with the tortoise have a gross sensuality, repulsive and brutal. It is the nadir of sensuality. Still one feels that Lawrence loathes these reptiles, screaming painfully. He wrote poems of hatred too.

To Miriam he says

"So I failed to give you the last
Fine torture you did deserve."

He is fascinated with cruelty: he was growing into a sadist.

I should have been cruel enough to bring
You thru the flame.

Sadists are lustful, disbalanced creatures. Lawrence had become one. The excess of lust and cruelty has an obvious reason. If we read the poems carefully we find that they tell the sad tale of Lawrence. His poems can be divided under certain heads: Poems of pure beauty, generally the earliest, Poems of lust and Poems of cruelty and lust generally the middle period, and the Poems of Reconciliation the last poems.

This shows a growing temperament. Let us take some facts from the poems themselves. Lawrence felt the first serious impulse of youth when he was 21. He wrote the *Virgin Youth*. After that he knew woman. He was unsatisfied. In vain he sought the maternal quality in them. Still he was a youth, he had hopes. One day he would find one who would be the 'mistress and mother of his body.' He could not realise this in his experiences. The lustful nature that he had in-

herited from his father, which was hitherto latent in him, or had given very feeble evidence of its presence, burst forth. He revelled in it. However, there was nature with its harsh judgement. Lawrence became weak, perhaps caught the germs of consumption. His vitality was ebbing away. But the desire remained. His mind was obsessed. His desires lashed him with greater fury. And so his poems have too much of lust in them

One can pursue the point further. The man incapable of performing the physical requisites of life, becomes perverted, becomes effeminate. Lawrence is particularly so in the poem *The Man Who Died* and a few other poems. The very title is significant. And then he says

“ No tree in bloom
But it leaned you
A white bosom.

Now he cannot see this, he cries in despair :

Now I am trodden to earth *my fires are low*
Now I am broken down like a plant in water.

Elsewhere he tries to avoid the gaze of woman.

Is there no hope far away from your sight

A thing that a physically useless man feels most.

Later on many poems are absolutely unquotable. The earlier poems are mild. A Bodkin may permit them. What one wonders is, how some of these poems were ever published. Not only are they foolishly obscene, but some of them are poetically worthless :

The proper way to eat a fig in society
Is to split it into four, holding it by the stem
So that it is a glittering, rosy moist, honied, heavy
petalled flower.

The first two lines are poetically worthless. The third line might have been poetic, but too many adjectives have spoiled the fig and killed the poetry. A few lines later we find the neurotic. Here is no half-hearted compromise. Lawrence wants to call a spade a spade, and what is worse, searches out spades or imagines spades where no such

exist merely for the pleasure of calling them so. The fig to him is symbolic :

“ As you see it standing growing you feel at once it is symbollic
And it seems male.

But when you come to know it better you agree with the Romans, it is female.

The demon is in his element. The poem is unquotable.

His later poetry has a wider choice of subjects. “ Fruits, trees, flowers, the evangelic beasts, (St. Mark, Matthew, Luke and John) creatures, reptiles, animals, birds, bats, ghosts all of them come under this singular poetic treatment. Among the animals Lawrence is attracted most by the he-goat. It is his savage fighting nature. This primitive quality of pugnacity works always as a charm on Lawrence.

The he-goat will :—

“ Turn with a start, to fight to challenge to suddenly butt
And then you see the god that he is, in a cloud of black hair
And storm lightning slited eye,
Splendidly planting his feet

He admires the he-goat's egoism who stands at the highest peak like the devil and looks at his own. He has a contempt for the she-goat. She is not active. She ‘ smiles with goaty munch mouth, Mona Lisa like.

The love for the strong is a characteristic of Lawrence. He cannot countenance passivity. He is a believer in supermen.

“ There are too many people on earth,
Insidid unsalted, rabbity endlessly hopping
They nibble the face of the earth to a desert.

He came from the people. He loved them, yet he knew that a large number of them are useless, a drag on society. It is cruel perhaps, but the question of over-population is vexing us all and we know that useless people are born not only amongst the common people but they are perhaps more common in the very highest class of society.

This belief in the idea of superman creates a great gap in the work of Lawrence. Childhood has not fascinated him. The few references that we have have more to do with the boredom of the poet,

who sat at the table watching little children adding little sums, than with the children themselves.

The fact is that for a believer in the doctrine of the superman the child is not a unit by himself. He is part of an organism, a link in a long chain. Man is the higher being. Manhood is the ultimate end of childhood. "For the clear and fearless man is God" . . .

The last poems of Lawrence stand apart. They are the last message of a dying genius. The demon has been exorcised. He appears no more. Some of the poems are mere jottings. Lawrence might have converted them into poems of some shape; perhaps he was satisfied with their form, he was not writing poems in the conventional sense, these are the whispers that a silent soul catches from the mysterious beyond. At times the voice is confused, at times bald and stark, but magnificent in its naked beauty.

It is a spiritualised Lawrence. The most important poem is the *Ship of Death*. Perhaps Lawrence planned it to be a longer poem. It is the swang song of a soul nearing its haven after having been tossed in fiery seas. The idea of solitude grips the poet, it recurs again in these poems.

There is not beside holy silence
and ' Only in sheer oblivion are we one with God '

For when we know in full we have left off knowing.
' We are dying we are dying we are dying
and nothing will stay the death flood arising in us
soon it will rise on the world on the outside world.
There is no port there is nowhere to go
only the deepening blackness darkening still
Blacker upon the soundless ungurgling flood.
Ah wait wait for there is the dawn
The cruel dawn of coming back to life
out of oblivion.

The poems are too pessimistic. Again he says

' Come holy silence come
great bride of all creation
come holy silence reach reach
from the presence of God and envelop us.

Lawrence wants to escape the din and the bustle of the world. He is tired with the mechanical age. He knows man is creating his master in the shape of the machine. These poems are the warning of one whose spirit is bruised, who is in despair because of the rush of modern mechanical life.

Lawrence realised as all thoughtful people realise that there is no end to the desire of man, the inventor of machines. The machines are usurping our place, the mechanised man is cramping our soul.

“ the iron has entered our soul ”

and out of the lips of the people mechanical noises in place of speech. The machines will be the cause of the end of man. We, the slaves of machines, will have to bear a worse fate than the slaves of an Arab sheik :

The robot is the unit of evil.

He wants the people, the human being.

“ The golden fields of people
all moving into flowers.

and he hopes for the men who will be the wild roses of England

And will have metal thorns.

The language of these poems has changed. It is more austere. It has more massivity and it is more simple; the images are few, but they have the power of a bass note. They strike deeper, they give a broader vision. They act like the few colour splashes from Turner's brush.

These poems are the soul's song. They are a bulwark against effiminacy, against decadence, against mere refinement. In itself it is no sin to love delicacy and refinement, but when delicacy is supposed to be real beauty, and vigour is thought as something barbarous, when all other considerations are subordinated to polish and finish, art becomes effete, it dies for it lacks blood. Delicacy in art satisfies the mind, it seldom goes further, it never sways the soul.

An instance may be taken from two poets, Pope and Browning. No more refined poet than Pope exists in English. Few surpass him in delicacy of touch, the polish of his verses is absolutely dazzling. Before him Browning appears faulty and boorish. Yet when we compare

the two, the refinement of Pope seems artificial, his delicacy changes into effiminacy, his polish becomes varnish. In the history of art we find this repeated again and again. The extraordinary insistence on refinement in Moghul art in the time of Shahjahan acted like a lancet and drew forth its life blood, and culminated in the album of Dara. The vigour of Moghul art was gone, what remained was a mannerism, a shadow. For this reason the poetry of Lawrence has a greater value for the future. Its massivity of emotion lifts us out of the rut. It gives us confidence.

Unfortunately my treatment of the last poems has been very sketchy. I have not touched on Lawrence as a writer of free verse. His emotions were too intense, in his later stage to be circumscribed within the narrow space of rhyme and metre. It was like an avalanche breaking through all barriers. It found its best expression in free verse.

We have made a very casual survey of Lawrence's poetry. And we feel we are meeting one whose confessions these poems are; we feel a strange lonely personality behind them—a mixture of opposites, an extremely complex personality, trying to reveal himself. We feel that words are an inadequate medium; he writes with his pen dipped in his heart's blood, yet the strength of his passion cannot be conveyed through them. We only catch outlines of the real figure through his words even as the conscious utterances give an idea of the vast sea of the subconscious beyond.

As we read through these pages we are enchanted, we are amazed, we are disgusted, we are bewildered. It is not a human being, it is a tornado. But even as the tornado dies and in its wake comes the gentle breeze dancing with the waves, so we find in the last poems the violent energy gone, a spiritual peace setting in.

In them is the philosophy of pure inaction, the philosophy which Gautama preached of yore. Through absolute inaction comes realisation. A clear flame burns in these poems and lits them up with a spiritual halo, like the luminous face of the Buddha after Realisation. Lawrence, the maelstrom of passion, has caught a glimpse of the eternal silence—the silence that is God.

These are the realisations of one who suffered alone for us. He gave to us in wave after wave his immortal soul. We owe him homage. . . .

THE IDEA OF SIN IN THE URDU GHAZAL

By MR. RAGHUPATI SAHAI, M.A.

From my early youth I was strangely affected and fascinated by the frequent and varied treatment of the theme of sin in the Urdu ghazal. As I grew up my interest in philosophy and literature brought me up against the subject of sin in all its wide range and deep implications in the history of man's thought and utterance. Some of its striking instances are (a) the Semetic idea of the war in Heaven, the divine forces at cross-purposes with themselves in the roles of God and Lucifer,—the divine antithesis, (b) the occult symbols of the tree of life and the Tree of Knowledge,—Adam's temptation and fall through Eve's curiosity, (c) the idea of the Trinity and of the son of Man and God and Crucifixion and the Passion of Christ, (d) the doctrine of Original sin and faith, (e) the Zoroastrian idea of Ahuramezda and Ahiraman, (f) the Hindu idea of *Maya*, the *sur-asur sangram* and of the Churning of the Ocean; the Brahmahood of Rama and the Brahmanhood of Ravana, the idea of the Hindu Trinity, (g) Plato's idea of a divinity struggling against something within itself, (h) the war of the Gods and the Titans,—the Greek idea of there being no unmixed good or unmixed evil, (i) the Hegelian Dialectics, and the doctrine of Polarity, (j) the scientific idea of force *vs.* energy, (k) the Bergsonian theory of the *elan vital* as a 'sheaf of contradictory tendencies,' (l) the philosophical idea of the noumena and the phenomena, (m) Emerson's doctrine of compensation, (n) Einstein's Relativity applied to life, (o) the mystic legend of Sin and Death and Resurrection, (p) the Spinozean idea of this world being the best of all possible worlds, (q) the doctrines of Immanence and Transcendence, (r) the Crocean idea of Reality and Expression, (s) Schopenhauer's Will and Idea, (t) Neitzche's idea of Man and Superman, (u) Classicism and Romanticism, (v) Asceticism and Hedonism. Thus the problem of evil and of sin has been in all times and climes the crux of thought and culture and the spirit of man has come up against the mystery of pain and joy, of tragedy and comedy and the significance of their mystic union, resulting in the last reaches of thought, in an aesthetic and ethical monism. Think of the awful height to which Beatrice leads Dante, where Desire and Will

are One, of the world of the Shakespearean Romances, of the spirit of the Sanskrit drama. In mathematics and music, painting and architecture we have the anti-intellectual antinomies of the finite and the infinite, rhythm and jar, light and shade, curve and sweep---each of these being an allegory of the soul.

Islam, with its puritanical associations and practical bias and with its pluralistic and particularistic emphasis, led in its early stages, to an almost fanatical discouragement of the mystical element in life. The history of the Christian Reformation and Pagan Renaissance repeated itself in the history of Islam also in Arabia, in Persia and in India. The fates of the mystic rebel Mansoor, of Sarmad and others are instances in point. In Persia we had the intolerant formalists and ritualists, the Mullas pitched against the liberal-minded Persian mystics who represented an Islam liberated from itself as a result of the permeation of the original Islam and its Semitic dualism with the ancient Aryan culture of Persia. Persian mysticism fertilised the original Islamic idea, deepened it, enlarged it and enriched it. Dogma became allegory and credal theology became symbolism. This cultural fusion blossomed out in the Persian poetry, particularly the ghazal and by easy transference became also embodied in the Urdu ghazal. Some expressions and some meanings of these expressions which soon found a way in Persian and Urdu poetry and then became part of the lyric tradition are significant:—

کفر و ایمان ، عشق کفر مشرب ، مذهب عشق ، گناہ عشق ، جرم عشق ،
حسن کافر گیسو و رخ ، مکشراور قیامت ، آدم اور افراتوس ، هوش و جنوں ، سزائے عشق ،
نیو و حرم ، مسجد و میخانہ ، اذان و ناقوس سبک زنا ر قشقه ، بت اور بتخانہ ،
شیخ و برہمن ، زاهد و رند ، شیخ واعظ ، میخانہ ساغر و جام و خم و پیمانہ ،
چشم سیاه کار - چشم مست ، مے شراب صرہا بادہ ، پیر مغان ، ساقی ، مغبیچہ مطارب ،
مکتسب ، مکان و لا مکان ، ہستی عدم دوزخ جنت ، حلال و حرام -

Below I quote at random a few Persian verses and then more Urdu verses to give some idea of how the Urdu poets have dealt with the perennial and fascinating theme of sin and its associations:—

حدیث از مطرب و مکرگر و راز دہر کمتر جو
کہ کسی نہ کشود و نک ہز بحکمت این معمارا

[Hafiz]

تو برائے وصل کردن آمدی * نے برائے فصل کردن آمدی
عشق ممکنوں نیست این کار من است * حسن لیلی عکس رخسار من است
[Maulana Roomi]

در دل ما غم دنیا غم معشوق شود
بادہ چوں خام بود بکفہ کند شیشہ ما
[Urafi]

مے بہ زہاد ممکن عرض کہ این جوہر ناب
پیش این قوم بہ شورابۂ زمزم نہ رسد
[Ghalib]

منم کہ طوف حرم کردہ ام بتے بکنار
منم کہ پیش بتاں نارہ ہائے ہو زدہ ام
[Dr. Sir Muhammad Iqbal]

Let me pass on now to the Urdu verses on this theme.

1. The mystery, the parade and the glory of sin.—

تردامنی یہ شیخ ہماری نہ جائیو
دامن نچوڑ دیں تو فرشتے وضو کریں
[Dard]

2. Eat, drink and be merry for to-morrow we die : the pathos of it all. Compare Omar Khayyam's One Moment of the Well of Life to taste :—

ساقیا یاں لگ رہا ہے چل چلاؤ
جب تلک بس چل سکے ساغر چلے
[Dard]

گو ہاتھوں میں جنبش نہیں آنکھوں میں تو دم ہے
دھنے دو ابھی ساغر و مینا مرے آگے
[Ghalib]

پچھلے پہر وہ ساقیا قول ترا یہ دیکے جام
گردش چرخ کیا دکھائے دور یہ ہیں اخبرے
[Firaq]

پچھلے پہر وہ ساقیا یاس بھری نظر تری
جب چلے دور آخری بادۂ خوش گوارے
[Firaq]

3. Sin's counter-challenge to the challenge of Religion :—

مجھے اے شیخ کیا نار جہنم سے ڈراتا ہے
سمندر موج مارے گز نیچوروں پات دامن کا

[Atash]

کدھر سے برق چمکتی ہے دیکھلے واعظ
ادھر میں جام اٹھاتا ہوں تو کتاب اٹھا

[Jigar]

4. The cosmic significance of sin : Its revealing power :—

ہوش جاتے رہے ساقی انہیں آنکھوں کی قسم
گردش چشم کو میں گردشِ دوراں سمجھتا
یہی تھوڑی سی مرے ہے اور یہی چھوٹا سا پیمانہ
اسی سے رند راز گنبدِ مینا سمجھتے ہیں
نظر بھی آشنا ہو جلوۂ بے نقش و صورت سے
ہم اہل راز سب رنگینی مینا سمجھتے ہیں
شاید کہ پیام آیا پھر وادئی سینا سے
شعلے سے لپکتے ہیں کچھ کسوتِ مینا سے
میکانہ کی یہ صحبت اے شیخ غنیمت ہے
کچھ لو لب ساغر سے کچھ سینۂ مینا سے

[Atash]

گوشہ گوشہ علم و حکمت کا ہے یاں دیکھا ہوا
یہ غنیمت ہے درِ میکانہ ابتک باز ہے

[Asghar]

تصورِ عرش پر ہے اور سر ہے پائے ساقی پر
غرض کچھ زور دھن میں ان دنوں میخوار بیٹھے ہیں

[Insha]

فردوس کی طہور بھی آخر شراب ہے
مجھکو نہ لے چلو مری نیتِ خراب ہے

[Hafiz Jullandhari]

5. Wine and Sin and their various significances, symbolic suggestions and implications, now Hedonistic, now mystic, now transcendental, now universal, always human :—

رہا آباں عالم اہل ہمت کے نہ ہونے سے
 بھرے ہیں جس قدر جام و سبو میخانہ خالی ہے
 مے سے غرض نشاط ہے کس دوسیاہ کو
 گلگونہ بے خودی مجھے دن رات چاہئے
 ہر چند ہو مشاہدہ حق کی گفتگو
 بنتی نہیں ہے ساغر و مینا کہے بغیر
 میں اور بزم مے سے یوں تشنہ کام آؤں
 گر میں نے کی تھی توبہ ساقی کو کیا ہوا تھا
 کرنی تھی مجھے پہ برق تجلی نہ طور پر
 دیتے ہیں بادۂ ظرف قدح خوار دیکھکر
 مدت ہوئی ہے یار کو مہماں کئے ہوئے -
 جوش قدح سے بزم چراغاں کئے ہوئے

[Ghalib]

یہ مسائل تصوف یہ ترا بیان غالب
 میں تجھے وای سمجھتا جو نہ بادۂ خوار ہوتا

[Ghalib]

کمفیت چشم اس کی مجھے یاد ہے سودا
 ساغر کو مے ہانپہ سے لینا کہ چلا میں

[Sauda]

اگر اُنھا تھا کعبہ سے اور جھوم پڑا میخانہ پر
 بادۂ کشوں کا جھرمٹ ہیگا ساغر اور پیمانہ پر
 واعظ ناکس کی باتوں پر کوئی جاننا ہے میر
 او میخانے چلیں تم کس کے کہنے پر گئے
 میر اُن دیم باز آنکھوں میں ❀ ساری مستی شراب کی سی ہے

[Mir]

دئے ساقی نے مجھکو چند جام آہستہ آہستہ
 ہوئی یہ بزم مے مجھے ہر تمام آہستہ آہستہ

[Aziz Safipuri]

کاش اک جام بھی سالک کو بلایا جاتا * اک چراغ اور سر راہ جلایا جاتا
اک جرعه شراب نے سب کچھ بھلا دیا
اٹے ہیں آج ہوش میں یارب کہاں سے ہم

[Hali]

یہ بزم مے ہے یاں کوتاہ دستی میں ہے مکرومی
جو بڑہ کر خود اٹھالے ہاتھ میں مینا اسی کا ہے
مغبیجے ہیں متکیر متبسم ساقي
پینے والے تجھے پینے کا نہ انداز آیا

[Shad Azimabadi]

زمانہ اٹے گا مے پرستی کا عام دیدار یار ہو گا
بنے گا سارا جہاں میخانہ ہر کوئی بادہ خوار ہوگا

[Iqbal]

6. So it hath been ordained :—

اختیاری عمل رند قدح نوش نہیں * خط تقدیر ہے موج مے سر جوش نہیں
[Saba]

خلوص اب ہم یہ لائیں گے کہاں سے * نکل کر حلقہ پیر مغاں سے
مے و مینا سے یاریاں نہ گئیں * میری پرہیز گاریاں نہ گئیں
و فور بے خودتی بزم مے نہ ہو چھو رات * کوئی بجز نگہ یار ہوشیار نہ تھا
[Hasrat Mohani]

فرشتے عرصہ گاہ حشر میں ہم کو سنبھالے ہیں
ہمیں بھی آج لطف لغزش مستانہ آتا ہے
کبھی کی پی ہوئی کام آئی آج حشر کے دن
خدا کے سامنے میخوار سرخرو اٹے
جہاں ہم خشت خم رکھ دیں بنائے کعبہ پڑتی ہے

جہاں ساغر پتک دیں چشمہ زمزم نکلتا ہے
انہیں میخانوں میں ہیں پیر مغاں ایک سے ایک
قبلہ دیں ہے کوئی کعبہ ایماں کوئی
حرم و دھر میں ہوتی ہے پرستش کس کی
میکشو یہ بھی کوئی نام ہے بتخانوں کے

[Riaz]

7. The light that never was on sea or land :—

مے سر جوش تجلی کو چھلکتے واعظ
میں نے ساتھی کے اداؤں کے قریں دیکھ لیا

[Firaq]

8. A Negro convert to Christianity stole a pig and yet quite unmindful of it wanted leave to attend Church. When reminded of her theft she said :—“ What nonsense; shall I allow a dirty pig to stand between me and my maker :—

زاهد شراب پینے سے کافر ہوا میں کیوں
کیا تیرہ چلو پانی سے ایمان بہ گیا

[Zauq]

The same heightened :—

حشر ہے زاهد یہاں ہر چیز کا ہے فیصلہ
لا کوئی حسن عمل میری خطا کے سامنے

[Asghar]

9. My eyes have seen the glory :—

ہاتھ میں لیکے جام مے آج وہ مسکرا دیا
عقل کو سرد کر دیا روح کو جگمگا دیا

10. ‘ Their fires ’ are never quenched :—

اس نے مجھے دکھا دیا ساغر مے اُچھال کے
آج بھی کچھ کمی نہیں چشمک برق طور میں

[Asghar]

11. And never lighted :—

مے تو مے نشہ مے پی گئے تیرے بد مست
آگ لگ جاتی اگر شوق چراغاں ہوتا

[Firaq]

12. Our night :—

ہم گدایان دو پہر خرابات کی رات
ہے شب قدر سے دعویٰ ہے مساوات کی رات

[Asi Ghazipuri]

13. We of the Saki's party :—

مگر اس کو فریب نرگس مستانہ آتا ہے
التی ہیں صفیں گردش میں جب پیمانہ آتا ہے

[Atash]

در مسجد بہ چلنے دو صفی شیخ و برہمن ہیں
خدا کا نام لیکر ہمتو میخانہ کو جاتے ہیں

[Safi]

14. The same in a lighter vein, just as Biblical themes inevitably changed from grave to gay in the Mystery and Miracle plays. Moreover, a few stray instances apart, the Lucknow School of Urdu Poetry has always proved itself incapable of the power of suggestion and of high seriousness and has always suffered from *literalness*. Yet it has linguistic if not genuine lyrical beauties :—

ہم نے جی کھول کے پی بیتھہ کے مسجد میں شراب
واعظ خشک بچاتا رہا دامن اپنا
دن کو روزہ عید شب کو ہے عجب شغل ریاض
رات بھر پیتا ہے یہ مرد مسلمان آج کل
یہ کیا مذاق فرشتوں کو آج سوچھا ہے
خدا کے سامنے لے آئے ہیں پلائے مکھی
یہ سر بمہر بوتلیں جو ہیں شراب کی
راتیں ہیں ان میں بند ہمارے شباب کی
جام مے توبہ شکن توبہ مری جام شکن
سامنے ڈھیر ہیں توتے ہوئے پیمانوں کے
دیکھا کئے وہ مست نگاہوں سے بار بار
جب تک شراب آئے کئی دور ہو چکے

[Riaz]

پہلو میں دگار ہاتھ میں جام * اس وقت تو بادشاہ کیا ہیں

[Saba]

وعظ کی محفل میں بھی آئے تو یوں مستان عشق
مے کی بوتل تھی بغل میں ہاتھ میں پیمانہ تھا

[Amir Minai]

گل وہ صبح درخشاں کہ ملک پیار کریں
 آنکھیں وہ فتنہ درواں کہ گنہگار کریں
 جلدوہ ساقی و مے جان لئے لیتے ہیں
 شمع جی صبر کریں ہم تو پئے لیتے ہیں

[Akbar Allahabadi]

15. Lyric Hedonism :—

جھومتی آج جو متوالی گھٹا آئی ہے * یاد کیا کیا تری مستانہ ادا آئی ہے
 پھونکے دیتی ہے مجھے یاد مرے ساقی کی
 اک برسائی دھواں دھار گھٹا آئی ہے

[Jalil]

16. And pass the purple joy around : —

نیرنگ روزگار میں کیف دوام دیکھ
 ساقی کی مست آنکھ سے گردش میں جام دیکھ

I have quoted at some length from verses which come under what has been aptly named as *خمریات* i.e., the cult of the wine and its symbols and associations because these stand for a frank recognition of the joy, the pain, the mystery and the meaning of life and love and sin, of good and evil, being a vivid and picturesque contrast to the exclusive asceticism of religion and the narrowing effects of creed, dogma and formula. I give below verses with a more direct utterance or under other symbols :—

17. Alas for the inadequacy of it all :—

دریائے معاصی تنک آبی سے ہوا خشک * میرا سر دامن بھی ابھی تر نہ ہوا تھا
 [Ghalib]

18. Retribution, Heaven, Imprisoned Divinity, Pagan, Love :—

پکڑے جاتے ہیں فرشتوں کے لکھے پر ناحق
 آدمی کوئی ہمارا دم تحریر بھی تھا

[Ghalib]

ہم کو معلوم ہے جنت کی حقیقت غالب
 دل کے خوش رکھنے کو لیکن یہ خیال اچھا ہے

[Ghalib]

سراپا آرزو ہونے نے بندہ کر دیا ہم کو
وگرنہ ہم خدا تھے گر دل بے مدعا ہوئے

[Mir]

سخت کافر تھا جس نے پہلے میرؒ * مذہب عشق اختیار کیا

[Mir]

19. The Divine Waiting: the Soul of Lelith:—

باغ بہشت سے مجھے حکم سفر دیا تھا کیوں
کار جہاں دراز ہے اب مرا انتظار کم
نہ بچا بچا کے تو رکھہ اسے ترا آئینہ ہے وہ آئینہ
کہ شکستہ ہو تو عزیز تر ہے نگاہ آئینہ ساز میں
نہ جہاں میں تو اماں ملی جو اماں ملی تو کہاں ملی
مرے جرم ہاے سیاہ کو ترے عفوے بندہ نواز میں

[Iqbal]

یہ دکھائینگے کبھی رنگ بھی یہ آرائینگے کبھی رنگ بھی
یہی لائینگے کبھی رنگ بھی جو رنگے ہیں رنگ مجاز میں

[Riaz]

20. Man lord of creation: simple man greater than the prophets and the angels:—

لازم نہیں کہ سب کو ملے ایک سا جواب
اؤ نہ ہم بھی سیر کریں کوہ طور کی
وہ زندہ ہم ہیں کہ ہیں روشناس خلق اے خضر
نہ تم کہ چور بنے عمر جاوداں کے لئے
لازم نہیں کہ خضر کی ہم پیروی کریں
مانا کہ اک بزرگ ہمیں ہم سفر ملے

[Ghalib]

Compare the Rabbi ben Ezra's words as reported by Browning:—
“ Now who shall arbitrate, ten men love what I hate; . . whom shall my heart obey? ”

وہ ہم تھے جس نے بار عشق اٹھایا وقت اے پر
فرشتے تیرے نکلے آسمان نکلا زمیں نکلی

[Firaq]

21. Now pleasant is this flesh :—

کچھ رنگ جمالو نوجوانو * تا عہد شباب زندگی ہے
[Ibrat Gorakhpuri]

گو جوانی میں تھی کج رائی بہت * بر جوانی ہم کو یاد آئی بہت
[Hali]

ہے ریاض اک جوان مست خرام * نہ بئے اور جھومتا جاے
[Riaz]

22. Know and see and accept the illusion : See it through but also live it through :—

فغاں کہ منجھ غریب کو حیات کا یہ حکم ہے
سمجھ ہر ایک راز کو مگر فریب کھائے جا
[Josh]

23. Let the man in thee be greater than thy divinity :—

قطرہ اپنا بھی حقیقت میں ہے دریا لیکن
ہم کو تقلید تنک ظرفی منصور نہیں
[Ghalib]

24. There is no duality between evil and good : Ethical monism :—

بر روے شش جہت در آئینہ باز ہے * یاں امتیاز ناقص و کامل نہیں رہا
[Ghalib]

25. Satan's farewell to heaven :—

خلد بریں میں آج تک گونج رہی ہے یہ صدا
آؤ عذاب ہی سہیں کیا ہے دھرا نجات میں
[Firaq]

26. Seest thou this human beauty with its lure and call?

وہی ہے اک شعلہ تجلی رہا جو اُنمیں میں سنگ ہو کر
جب اس نے اپنی نمود چاہی کھلا حسینوں پہ رنگ ہو کر
[Dagh]

27. The dignity of sin :—

اللہ رے قدر مرے گناہوں کی روزِ حشر
تعظیم کو کھڑی ہوئی میراں حساب کی
[Amir Minai]

کمر یار سے کھینچ کر ہوئی تلوارِ جدا
بے گناہوں سے کھڑے ہوئیں کھنڈارِ جدا
[Atush]

نگاہِ کرم سے مجھے کو نہ دیکھے اے دوزخ
خبر بھی ہے تجھے کس کا گنہگار ہوں میں
[Amir Minai]

28. The glory that was Paganism :—

دھر کی تحقیر اتنی مت کر اے شیخِ حرم
آج کعبہ بن گیا کل تک یہی بتخانہ تھا
[Amir Minai]

29. Let us change the sorry scheme of things entire :—

اؤ جہاں دہم کریں پیدا نیا عالم کریں
تم جانِ جانِ حسن ہو ہم جانِ جانِ عاشقی

30. Freedom and Fate :—

ناحق ہم مجبوروں پر یہ تہمت ہے مختاری کی
چاہے ہیں سو آپ کریں ہیں ہم کو عبثِ بدنام کیا
[Mir]

جسمِ آزادی میں پھونکی تو نے مجبوری کی روح
خیر جو چاہا کیا اب یہ بقا ہم کیا کریں
فانی تو ہے عملِ ہمہ تن جبرِ ہی سہی * سانچے میں اختیار کے ڈھالے ہوئے تو ہیں
[Fani]

مجھے دل کی خطا پر یاسِ شرمنا نہ ہیں آتا
بہایا جرم اپنے نام لکھوانا نہ میں آتا
[Yas]

31. Freedom and Fate both illusions : Kinetic monism :—

ہر ذرۂ عالم پر حاوی ہیں صفات اس کے
سب کہنے کی باتیں ہیں مختاری و مجبوری
[Jigar]

32. Freedom and Fate : the eternal tangle :—

تمام جوشِ حنوں ہے تمام زنداں ہے
کسے وہ جبر کرے کس کو اختیار کرے

[Firaq]

33. Man the fire-bearer undertakes to enter the black pit of the world : The legend of Prometheus :—

بشر جو اس تہہ خاکداں میں پڑا یہ اسکی فروتنی ہے
وگرنہ قندیلِ عرش میں بھی اسی کے جلوے کی روشنی ہے

[Zauq]

34. Punishment and Retribution : Oh !

عمرِ عزیزِ گزری حسرتِ پرستیوں میں * ایسی بھی زندگی کا یارب حساب ہوگا

35. Sin and the lyric cry of Divine forgiveness.

حشر میں منہ بہیر کر کہنا کسی کا ہاے ہاے
آسئی گستاخ کا ہر جرم نا بخشیدہ ہے

[Asi Ghazipuri]

36. Sin, for thus alone shall the Divine grace accept thee : Not sinning thou shalt yet be sinning greatly :—

موقوفِ جرم ہی پہ کرم کا ظہور تھا * بندے اگر تصور نہ کرتے قصور تھا
بات رکھ لے مری قاتل نے گنہگاروں میں
اس گنہ پر مجھے مارا کہ گنہگار نہ تھا

[Amir Minai]

37. The original sin :—

ساخت ہے مجرم ہستی کی سزا اے مالک
میری رگ رگ مجھے جکڑے ہوئے زنجیر میں ہے

[Aziz]

نہ تھا کچھ تو خدا تھا کچھ نہ ہوتا تو خدا ہوتا
ذیوبا مجھ کو ہونے نے نہ ہوتا میں تو کیا ہوتا

[Ghalib]

38. Heaven and Hell :—

حکم سے اپنے جہنم میں جسے تو بھیجے * پھر وہ کافر ہے اگر اس کو پرے بہشت
[Atush]

بہشت و دوزخ اپنی بے حقیقتی کو دیکھ لیں
یہ تیور آج حشر میں تیرے گناہگار نے

[Firaq]

ہے عشق کہ مکشر میں یوں مست و خرا ماں ہے
دوزخ بگربیاں ہے فردوس بداماں ہے

[Asghar]

39. And Love shall cleanse thee like a fire :—

دو تیرے جلنے والے جلنے ہیں جیسی مصیبت سے
دوزخ کی بھڑکنی آگ اسپر سو مرتبہ چھاتی کوت گئی
ارے او جلنے والے جلنے والے یوں نہیں جلتے
ابھی شعلوں کی دگ دگ سے کسک سی ان نہیں نکلی

[Firaq]

آتش دوزخ میں وہ گرمی کہاں * سوز غمہاے نہانی اور ہے

[Ghalib]

ہاں یوں ہی سوز پنہاں کام اپنا تو کئے جا
ان آنچ کی کسر ہے اکسیر ہو چکا ہوں

[Firaq]

40. Man in chains more free :—

اہل جنوں کو وسعتیں کچھہ اور مل گئیں
دل بڑھ گئے ہیں پاؤں میں زنجیر دیکھ کر

[Firaq]

41. The agony and peace of the rack :—

یوں سزا لینے محبت نے گناہگار آئے * ہیں یہ تیور کہ انہیں نیند سر دار آئے

42. Destroy me and make me whole :—

مرگ و حیات حشر و ابد پر نہ کھل سکا
کس طرح ان نظر میں بدلتی ہیں ہستیاں

[Firaq]

43. The consecration of life symbolised by sexual union :—

ذیند اس کی ہے، دماغ اس کا ہے، رانیں اس کی ہیں
تیری زلفیں جس کی بازو پر پریشاں ہو گئیں
[Ghalib]

The virgin purity of sin :—

سکر ہوتے وہ اپنا چاک دامن لیکے بیٹھے ہیں
رغو کرنے کو تار دامن مریم نکلتا ہے
[Riaz]

44. Sin the saviour of the world :—

اے روسیاء عشق جو کروت لے خواب میں
دنیا کی بھی نجات کا پہلو لئے ہوئے
[Firaq]

45. The mystic interval :—

دم لے دھی تھیں حسن کی جب سکر کاریاں
اُن وقفہ ہاے کفر کو ایمان بنا دیا
[Firaq]

46. The sexual thrill : let us celebrate the flesh :—

زفرق تابقدم ہر کجا کہ می نگری
کرشمہ دامن دل میکشد کہ جا میں جاست
[Hafiz]

نہ بچا بچا ے تو رکھہ اسے ترا اُٹینہ ہے وہ اُٹینہ
کہ شکستہ ہو تو عزیز تر ہے نگاہ اُٹینہ ساز میں
[Iqbal]

47. Nature wakes to love :—

یہ کس نے آخر شب داستانِ شوق دھرائی
زمیں نے کروٹیں بدلیں فلک لیتا ہے انگڑائی

48. The unspeakable mystery :—

اگے بڑھے نہ قصہ عشق بقاں سے ہم
سب کچھ کیا مگر نہ کھلے رازداں سے ہم

[Hali]

49. The hard-won human gain of love :—

عشق میں کہتے ہو حیران ہوئے جاتے ہیں
یہ نہیں کہتے کہ انسان ہوئے جاتے ہیں

[Josh]

The Religion of Man :—

ہم موحد ہیں ہمارا کیش ہے ترک رسوم
ملتیں جب مٹ گئیں اجڑاے ایمان ہو گئیں

[Ghalib]

50. The Immortality business as Stevenson called it :—

کسی پر مٹ کے رہ جانا ہے حسرت * ہمیں کیا کام عمر جاوداں سے
[Haerat Mohani]

51. A new view of the Day of Judgment : No sin, no salvation :—

اے بقدر تم سے اگر آنکھ چوائی ہو کبھی
حشر میں بھی مجھے اللہ کا دیدار نہ ہو

52. The same, a shade deeper :—

اب دیکھئے کہ حشر ہو کیا روز حشر کا
بیدار ترے دیکھنے والے ہوئے تو ہیں

[Fani]

53. It hurts to be happy :—

وصل میں رنگ از کیا میرا * کیا جدائی کو منہ دکھاؤں گا
[Mir]

54. I see thee eternally, eternally vanishing. The eternal quest :
The legend of the Holy Grail :—

بقدر ذوق نظر دید حسن نا ممکن * ترسئے میں بھی ہے اک کیفیت ترستا جا
[Yas]

حسن کو وسعتیں جو دیں عشق کو حوصلہ دیا
جو نہ ملے نہ مٹ سکے وہ مجھے مدعا دیا

[Asghar]

55. Try the earth and see :—

بلند ہو تو کھلے تجھے پہ زور پستی کا
بڑے بڑوں کے قدم ڈگمگائے ہیں کیا کیا

[Yas]

56. The scorching sun of the Day of Judgement. O for the sheltering cool of the locks of the beloved :—

حشر میں آفتاب حشر اور وہ شورِ آلاء
اصغر بت پرست نے زلف کا واسطہ دیا

[Asghar]

57. Preacher, forbear :—

واعظ جو محبت سے دنیا کو دہراے ہے * بہ بات بگڑاے ہے یا بات بناے ہے

[Firaq]

58. The Tide of Love :—

طوفان محبت کا کہسار کو دھائے ہے * رہ رہے دیوے ہے رہ رہے تیراے ہے

[Saghar]

دوبنے والوں کو پلٹے کئی مروجوں نے دیے
رخ مگر جانب ساحل نہیں ہونے پاتے

[Fani]

59. Home is the sailor, home from sea :—

سفینہ جب کہ کڈاے پہ الگا غالب * خدا سے کیا ستم وجور نا خدا کہئے

[Ghalib]

60. The voyage ended, to begin again; man the Pilgrim of Eternity : the legend of Ulysses :—

موت ان مانند گی کا وقفہ ہے * یعنی اگے چلیں ئے دم لیکر

[Mir]

What do we make of it all? Emerson in his great essay on Compensation says that always man has tried to separate virtue from pleasure, the good from the pleasant and failed. Edward Carpenter says that lust cannot be thought of apart from its divine counterpart love. It was this balance of Greek Paganism which was rudely disturbed by Semitic dualism in its successive revivals as Zionism, Christianity and early Islam. Perhaps Paganism or the Aryan view of life needed this shock which, whenever it came, acted like an explosive and threatened to blow up civilization from its very foundations. Civilization still suffers from the shock and we have seen the swing of the pendulum from Puritanical and fanatical asceticism to a soulless materialism. The one called the universe evil and took to sackcloth and ashes. The other swing noticeable during the last century

or so has not been the worship of the flesh as is wrongly supposed but the worship of nothing in particular, namely, a mechanical mammonism. What Paganism had emphasised was the sanctity of the flesh and the joy of the spirit. Thus had the ancient Greeks and the ancient Indians won back their eternal youth. The highest wisdom is to be a boy and the Greeks, we are told, were boys. It is fantastic to suppose that the Greek conquest of Persia, and the Pagan Renaissance which was preceded by the revival by the Muslims of the all but lost Greek culture, had an important part to play in the re-birth of civilization. The burning lava of the volcanic eruption of civilisation caused by the explosive forces of Semitism, cooled down in time leaving a more fertile soil for the human spirit to germinate again? Thou enlargeth a nation then straighteneth it again. The symbolism of sin means thus a recognition of the sanctity of the flesh. Man can be rational at the cost of his animality (*i.e.*, budding, blossoming life; animate being a synonym of alive) only at his peril. What the poets have meant by sin is the recognition of the dialectics of life. Thus the body becomes the thesis, the soul is the antithesis and the miracle of the synthesis they call sin *جرم عشق، جرم هستی، کفر، مستی* This is the wine of life. This is that for which Goethe stood in iron times. This is what Goethe's paganism or classicism meant. It is not generally known that Goethe paid willing homage to the Persian poets recognising in them a spirit true to the kindred points of heaven and home. The cult of sin means the cult of acceptance, of a living faith in the universe, in life, in its carnal as well as spiritual urges. Let us not barter away our humanity to virtue even. The soul and the body interpenetrate each other. Let us thrill from the joy of the body to the joy of the soul. The great vice is exclusiveness. The way to hell is paved with good intentions. It is easy to ridicule this idea and to pillory truth. It is easy to degrade it as Rasputin inevitably reacting to the ascetic emphasis of Christianity did. It is not so easy to realise in life a soulful, a spiritual materialism. The symbol of sin in Persian and Urdu poetry celebrates the ritual of the marriage of heaven and earth. The joy of sin and the heart's blood that feeds it is the Mystic Rose. It is the bloom on the cheek of the goddess of Wisdom.

UPPER-AIR RESEARCHES BY SOUNDS FROM EXPLOSIONS

By DR. R. N. GHOSH, D.Sc.

During the last two decades problems concerning the meteorological conditions of the upper air have engaged the attention of the physicists specially by the study of the audibility of sounds from explosions. It is found that near the source of sound extending over 60 to 80 km. there is more or less a symmetrical zone of audibility of the sound where the intensity falls off as the distance from the source increases. Beyond this there is a zone of silence roughly extending over a radius of 100 km. but beyond this zone of silence a *second zone is found where the sound is audible*. It is this second zone of audibility which gave rise to considerable discussion over its existence, and finally led to careful and systematic study of the phenomenon. It was first thought that this anomalous zone of audibility was due to refraction caused by wind. For instance, if the horizontal component of the wind velocity increases upwards, then in a wave travelling upwards in a slanting direction in the direction of the wind, the more elevated portions of the wave front will travel with a larger velocity than the lower portions with the result that the wave front will be tilted downwards and finally swing round and reach the surface of the earth. Against the wind the tilting of the wave front will take place in an opposite direction, hence the wave travelling against the wind will not reach the ground surface at all. It is evident, therefore, that there will never be symmetry of the second zone of audibility if the refraction is caused by wind. This, however, is contrary to observation.

Before the war there were few observations to test the theory. It was in 1910 when Vandem Borne made a careful examination of the sound from explosion at Forde (Westphalia) and put forward the bold suggestion that the second zone of audibility is due to *sound waves which have been reflected from the upper atmospheres*. This theory attracted the attention of the physicists of different parts of the world. Fujiwhara in Japan (1911) examining the audibility of explosions at Mound Asama due to active volcanic eruption and explosion of gun-powder at Kobe (1910) supported the wind theory. Among the

early records of sounds from explosions, those by J. N. Dorr require mention. His paper deals with distant effects of an explosion of about 150 tons of gunpowder in 1912. It was noticed by him that between the inner and outer regions of audibility there extended a girdle of silence the width of which varied between 100 and 130 km.

During the war reports of bombardment at the front were heard at Mendon only when the wind blew from Mendon to the battlefield, and never when the wind was in the contrary direction. Again it was also observed that bombardments were audible on the allies' side of the front in summer at great distances, while the Germans and Belgians heard them only in winter. Mr. Miller Christy who lived in Chelmsford near London, kept a diary in which he noted day by day whether the firing at the battlefields was heard or not. He discovered that sounds from battlefields reached Chelmsford only during summer. These observations and further objections raised by Schmidt that air is so attenuated as to amount to vacuum at an altitude of 100 km., that sound waves could not be propagated in the upper atmospheres and returned to the surface of the earth, led to a considerable discussion of Borne's theory.

A careful analysis of the sounds from different explosion centres with a fuller discussion of rival theories was published by E. Van Everdingen (1916). He summarised that (1) there is always a second zone of audibility which usually begins at a distance of 100 km., and which is symmetrical round the source, and (2) that the intensity of the sound in this zone is no smaller than the sound at the outer border of the first zone which, it will be remembered, is nearer the source. He then considers the wind theory and points out that it is possible to account for the second zone of audibility on certain supposition of the vertical distribution of wind with the knowledge that the temperature in the lower atmospheres diminishes upwards, but the main difficulty remains—*viz.*, that the distribution of sound in the abnormal zone (second zone) is symmetrical, while the meteorological theory leads to an asymmetrical distribution. Considering Borne's theory he says that in the upper atmospheres beyond 11 km. the fall of temperature ceases and there is expected a difference in the composition of the atmosphere; in consequence of this the percentage of heavier gases becomes small, while lighter gases, *viz.*, hydrogen

predominate. As the velocity of sound in hydrogen is much greater than that in nitrogen or oxygen, the sound rays which were initially convex to the surface of the earth turn their inclination and are bent towards the earth. In support of the physical theory (Borne's) he refers to the bombardment of Antwerp (1914) which displayed an extraordinarily symmetrical abnormal zone of audibility; while in other cases examined by him, the outer limit of the silent zone is only slightly changed by considerable irregularities in the distribution of wind and temperature;—the border line of the outer extremity of the silent zone is the beginning of the abnormal zone, and it has always been found at about 160 km. from probable source.

Systematic Records of Sounds from Explosions.

It is apparent from what has been said above that the meteorological conditions of the lower atmospheres do play an important part in the audibility of sound. Attempts to correlate the phenomenon of audibility of firing during summer on the western front, and during winter on the eastern front were not successful. A careful systematic work began from the year 1917. Advantage was taken of the review firing of the Arms and Navy departments (England), and for the first time explosions were made, and with the help of well organised observers all round the source, records of audibility of sound were obtained. The surplus ammunition left after the war afforded further facilities for producing explosions. We shall now describe a few illustrative examples of explosion :—

(1) *Silver town explosion (1917).*—A large factory near the river opposite Greenwich was blown up, and the sound of the explosion as heard by the people was mapped out by Dr. C. Davison. It was found that the inner and the outer zone of audibility were quite separated but the outer zone was almost entirely to the east of Greenwich, and the inner margin of the outer zone was situated at a distance of 100 km. from the explosion centre.

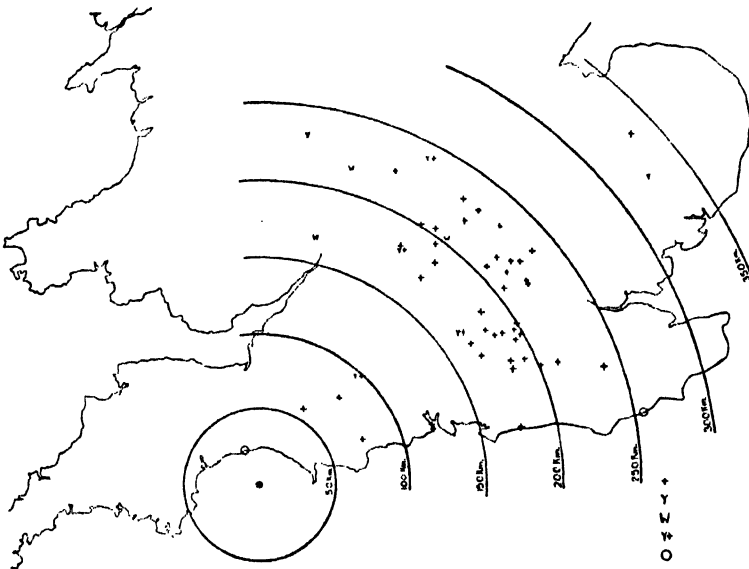
(2) The surplus ammunition left after the war was used by an international committee to investigate the phenomenon of abnormal audibility of sound by producing an explosion at La Courtene in Central France on May 1923. Records showed audibility on both sides of the source and the minimum distance of the outer boundary of

abnormal audibility was 160 km., considerably greater than in the case of Silver town explosion.

Dr. R. Wolf arranged an explosion at Boden in Sweden, January 11, 1933. The majority of the successful observations in this case, were to the south-west, but the explosion was heard 300 km. north-west, and autographic records of the air waves were obtained in Finland to the south-east. The experiment showed that the phenomenon of abnormal audibility of sound occurs within Arctic circle in winter.

The phenomenon also occurs in Africa almost within the tropics. An accidental explosion of a train load of gelignite took place on Sunday afternoon in South Africa 17th July, 1932; a map of the audibility of sound from the above explosion was prepared from the observations collected by Sunday Times. It was found that the explosion was heard at a range of 500 km., and the audibility at distant points occurred only to the east of the source. This was in the southern winter.

Figs. (1) and (2) illustrate the audibility of sound from review firing at West Bay. The figures show the contrast between winter and summer conditions in England. The firing was heard in the one case to the north-east, and in the other in the west and north-west.

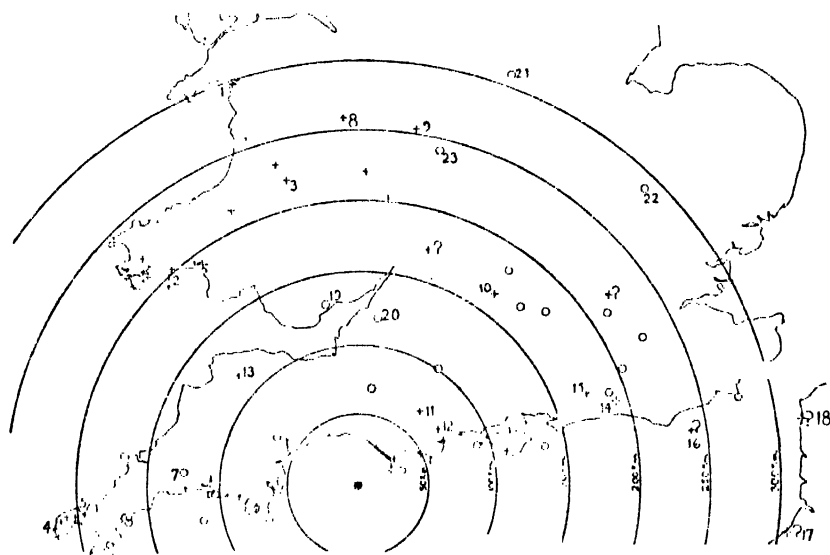


Audibility of firing Nov. 1st, 1930,

Fig. 1.

The Use of Instrumental Records.

It was realised during the war that it would be possible to learn more about the transmission of sound through upper atmospheres if the aural observations could be supplemented by instrumental records. Experiments began in England in 1926, and in Europe also by about the same time. There were two types of instruments that were used in the continent, *viz.*, (1) Kuhl's Undograph, and (2) Wiechertscher-membranapparat, while in England hot wire microphones with time



Audibility of firing 14th July, 1932

Fig. 2.

records were set up at different stations. A complete description of hot wire microphone will be found in Phil. Trans. Vol. 221, 1921. Briefly it consists of a fine platinum wire grid (0.004 cm. diameter) which is placed at the mouth of an acoustical Helmholtz resonator; the grid is heated by passing electric current (30-40 milli-amperes); when the sound waves fall upon the resonator, cooling of the grid takes place resulting in the disturbance of the electrical balance and vibration of a spot of light upon a recording instrument. Plate I.

The instrument which has received wide use and commendation in Germany, is the Undograph. A steel fibre is fastened to a thin mica sheet along an axis of symmetry, and is arranged to act as a taut suspension. The sheet swings freely, one half with as little clearance as possible in an opening through the wall of a large air-tight box;

the other half swings in a small chamber, producing some damping, but it is protected from the beginning waves. The motion is shown by a beam of light reflected from a mirror in the mica, and the optical, mechanical and photographic arrangements for recording this with necessary time and marks, are all contained in the box. The natural period is of the order of a second, and the records obtained from the wave (Plate II) just below the audible limit are good and easily distinguished from accidental disturbances because they are sinusoidal. These are the two types of instruments for autographic records of explosion waves.

Mathematical Theory of Wave Propagation in Upper Atmospheres.

The constitution and other constants of the lower atmospheres up to 11 km. which is the height of the Tropopause, are fairly accurately known, except for the daily variation of wind, clouds, etc. The mean temperature of the surface of the earth is taken to be 290°A , and the temperature of the earth's atmosphere diminishes linearly with height up to Tropopause where a temperature of 220°A is reached, beyond this region the temperature remains constant for a height of about 10 km., and then the temperature begins to increase. With the height the percentage composition of the atmosphere undergoes a change, and the pressure and density both diminishes upwards.

Up to Tropopause the pressure and density are given by

$$\frac{p_0}{p_0} = \left(\frac{T}{T_0} \right)^{\frac{\gamma}{\gamma-1}}, \quad \frac{\rho_0}{\rho_0} = \left(\frac{T}{T_0} \right)^{\frac{1}{\gamma-1}} \quad \dots \quad (1)$$

where $\bar{p}_0, \bar{\rho}_0$ represent the pressure and density at a height where the temperature is $T^{\circ}\text{A}$, while p_0 and ρ_0 represent their values on the surface of the earth with a temperature $T_0^{\circ}\text{A}$; and γ represents the ratio of specific heats for air ($\gamma = 1.4$)

$$\text{Since } \frac{d\bar{p}_0}{dz} = -\rho_0 g \quad \dots \quad (2)$$

where z is the height measured from surface of the earth, g = gravity. From (1) and (2) we obtain

$$T = T_0 \left(1 - \frac{(\gamma-1)}{C_0} g z \right) = T_0 (1 - \beta z) \quad \dots \quad (3)$$

C_0 = velocity of sound on the surface of the earth. If $T_0 = 290^\circ\text{A}$, $T = 220^\circ\text{A}$, $z = 10$ km., then $\beta = 2.4 \times 10^{-2}$ giving us a lapse rate of 7°A per kilometre. From (1) and (3) we get

$$p_0 = p_0 (1 - \beta z)^{\frac{\gamma}{\gamma-1}}.$$

In the isothermal region (stratosphere) the temperature remains constant, but the density varies according to the law

$$\rho = \rho_s e^{\frac{-\rho_s \gamma z}{C_s^2}} = \rho_s e^{-Hz} \quad \dots \quad \dots \quad \dots \quad (4)$$

where ρ_s represent the density at the tropopause, and $H = 11$ when z is expressed in kilometres.

The velocity of sound is given by

$$\begin{aligned} C^2 &= \gamma RT \\ R &= 2.87 \times 10^6, \gamma = 1.4 \\ C &= 20.1 \sqrt{T} \text{ for air } \dots \dots \dots (5) \end{aligned}$$

If f_1 , f_2 and f_3 represent the fraction by volume of different gases having molecular weights M_1 , M_2 and M_3 , then the mean molecular weight μ is given by

$$\mu = \frac{f_1 M_1 + f_2 M_2 + f_3 M_3}{f_1 + f_2 + f_3}$$

If $f_1 = 75$, and $f_2 = 25$, $M_1 = 28$, $M_2 = 32$

$$\mu = 29.$$

and the velocity of sound is given by

$$C^2 = \gamma R_0 T / \mu \quad R_0 = 8.3 \times 10^7 \text{ ergs.}$$

In the case when moisture is present in air, the velocity of sound is given by the formula

$$C^2 = RT \gamma' \frac{b}{(b - e)}$$

where b = atmospheric pressure

e = partial pressure due to moisture at temperature 'T'

and γ' is given by the formula

$$\frac{b}{\gamma' - 1} = \frac{(b - e)}{(\gamma - 1)} + \frac{e}{\gamma_m - 1}$$

γ_m = ratio of specific heats for moisture.

gases	γ	Velocity of sound at 0°C
Helium ...	1.66	971 metres
Argon	1.65	308 „
Oxygen	1.42	315 „
Water vapour	1.30	401 „
Air ...	1.40	331.5 „
Hydrogen	1.40	1261.0 „
Nitrogen	1.40	377.6

Wave Propagation in the Troposphere.

Assuming that the temperature and pressure vary according to eqns. (1) and (3), we shall now derive the equation of wave motion for plane waves. Let the wave travel vertically upwards along the positive direction of z axis with origin on the surface of the earth; p represents the variable pressure at any height when the wave passes through the point, and ξ is the displacement of air particles, then

$$\rho_0 \frac{d^2 \xi}{dt^2} = F_1 - F_2 \quad \dots \quad \dots \quad \dots \quad (6)$$

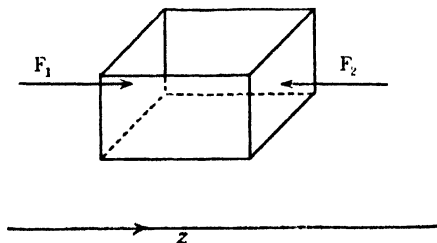


Fig. 3.

$$\text{Since } F_1 = p - p_0, \quad F_2 = \left\{ \left(p + \frac{dp}{dz} dz \right) - (p_0 + g p_0 dz) \right\}$$

$$\text{and } p - p_0 = -\gamma p_0 \frac{d\xi}{dz} \quad \dots \quad \dots \quad \dots \quad (7)$$

$$\text{We obtain } \frac{d^2\xi}{dt^2} = \frac{\gamma p_0}{\rho_0} \frac{d^2\xi}{dz^2} - \gamma g \frac{d\xi}{dz} \quad \dots \quad \dots \quad (8)$$

$$\text{i.e., } \frac{d^2\xi}{dt^2} = \gamma RT \frac{d^2\xi}{dz^2} - \gamma g \frac{d\xi}{dz} \quad \dots \quad \dots \quad (9)$$

Assuming $\xi \propto e^{i\omega t}$ and taking the help of (1) we find

$$C_0^2 (1-\beta z) \frac{d^2\xi}{dz^2} - \gamma g \frac{d\xi}{dz} + \sigma^2 \xi = 0 \quad \dots \quad \dots \quad (10)$$

Writing $\tau = (1-\beta z)$, $q = \gamma/(\gamma-1)$, $k = 2\pi/\lambda$

λ = wave length on the surface of the earth, and

$n = (q-1)$, and $k_1^2 = k^2/\beta^2$, we transform (10)

in the form.

$$\frac{d^2\xi}{d\tau^2} + \frac{n+1}{\tau} \frac{d\xi}{d\tau} + \frac{k_1^2 \xi}{\tau} = 0 \quad \dots \quad \dots \quad (11)$$

In order to obtain the above equation in a standard form, we write $\xi = \omega \tau^{-n/2}$, then (11) becomes

$$\frac{d^2\omega}{d\tau^2} + \frac{1}{\tau} \frac{d\omega}{d\tau} + \left(\frac{k_1^2}{\tau} - \frac{n^2}{4\tau^2} \right) \omega = 0 \quad \dots \quad \dots \quad (12)$$

which can be solved by writing

$$\chi = 2k_1 \sqrt{\tau}$$

when (12) takes the well-known form

$$\frac{d^2\omega}{d\chi^2} + \frac{1}{\chi} \frac{d\omega}{d\chi} + \left(1 - \frac{n^2}{\chi^2} \right) \omega = 0 \quad \dots \quad \dots \quad (13)$$

Since χ is large, the solution of (13) is given by

$$\omega = CQe^{i\chi}/\sqrt{\chi}^{\frac{1}{2}}, \text{ where}$$

$$Q = \left\{ 1 - \frac{(1-4n^2)}{16i\chi} + \frac{(1-4n^2)(3^2-4n^2)}{1.2.(8i\chi)^2} \dots \right\}$$

Hence neglecting small terms we get

$$\xi = \frac{Ce^{i\left\{ \sigma t + 2k_1(1-\beta z)^{\frac{1}{2}} \right\}}}{\sqrt{2k_1(1-\beta z)^{\frac{1}{2}}(n+\frac{1}{2})}}$$

Since $(n+\frac{1}{2}) \rightarrow 3$, we write down

$$\xi = C \left(\frac{\beta}{2k} \right)^{\frac{1}{2}} \cos \left\{ \sigma t + \frac{2k}{\beta} (1-\beta z)^{\frac{1}{2}} \right\} \quad \dots \quad \dots \quad (14)$$

From (14) we find at once that the amplitude of vibration of air particles increases as we ascend high up in the troposphere. The

wave velocity can be calculated from the consideration that

$$\Delta f = 0, \text{ where } f = \sigma t + \frac{2k}{\beta} (1 - \beta z)^{\frac{1}{2}}$$

$$\text{hence } \frac{\Delta z}{\Delta t} = C_0 (1 - \beta z)^{\frac{1}{2}} \dots \dots \dots (15)$$

a result which could be predicted from equation (1). The wave length is found from the consideration that

$$\Delta f = 2\pi \text{ when } z \text{ alone varies}$$

$$\text{i. e., } \frac{-k \Delta z}{(1 - \beta z)^{\frac{1}{2}}} = 2\pi; \text{ Putting } -\lambda = \Delta z$$

$$\text{we get } \lambda = \lambda_0 (1 - \beta z)^{\frac{1}{2}}, \text{ which}$$

again comes out the same when it is calculated from the wave velocity C at any height.

The specific acoustic impedance I of the medium is defined by

$$I = \frac{\delta p}{\xi}$$

$$\text{hence } I = I_0 (1 - \beta z)^{\frac{1}{2}} \left\{ 1 + \frac{\beta i}{(1 - \beta z)^{\frac{1}{2}}} \right\} \dots \dots (16)$$

where I_0 is the impedance on the surface of the earth. Thus we find that the impedance diminishes rapidly as z increases. The second term of (16) indicates that the pressure has a component which is out of phase with the velocity of air particles by $\frac{\pi}{2}$ and this term increases with z .

The flow of energy per second per unit area is given by $\delta p \xi$ averaged over a complete period. This on evaluation with the help of (7) and (14) comes out

$$E = \frac{I_0}{2} \sigma^2 \xi_0^2 \dots \dots (17)$$

where ξ_0 is the displacement of air particles on the surface of the earth. Equation (17) shows that in the case of an atmosphere with a vertical fall of temperature and density, the propagation of energy of sound waves remains constant though the impedance diminishes.

Wave Propagation in an Isothermal Atmosphere (Stratosphere).

The equation of wave motion in the stratosphere can be obtained from (9) by writing $C_s^2 = \gamma R T_s$, and the new equation is

$$\frac{d^2 \xi}{dz^2} - H \frac{d \xi}{dz} + k_s^2 \xi = 0 \quad \dots \quad (18)$$

The suffix s refers to the values at the Tropopause, and $\frac{\gamma}{C_s^2} = H$.

Assume $\xi \propto e^{mz}$ then

$$2m = H \pm \sqrt{H^2 - 4k_s^2}$$

If $H < 2k_s$, then

$$2m = H \pm 2i k_s \left(1 - \frac{H^2}{8k_s^2} \right) \quad \dots \quad (19)$$

$$\text{Therefore } \xi = P e^{i\sigma t} e^{\frac{H}{2}z} e^{-ik'_s z} \quad \dots \quad (20)$$

$$\text{where } k'_s = k_s \left(1 - \frac{H^2}{8k_s^2} \right)$$

The wave velocity is not entirely independent of wave length, hence there is some dispersion in the isothermal region. The *amplitude of vibration, however, increases with z* . The transmission of energy per unit area per second is found to be

$$E = \frac{1}{2} C_s \rho \xi_{max}^2 \sigma^2$$

$$\text{Since } \xi_{max}^2 \propto e^{Hz}, \text{ and } \rho \propto e^{-Hz}.$$

E comes out to be

$$E = I_s \xi_s^2 \sigma^2 \quad \dots \quad (21)$$

Thus here also the amount of energy propagated at any height is the same as at the tropopause. The impedance however is found to be diminishing with z , since

$$I = I_s e^{-Hz} \left\{ \frac{1 + iH}{2k_s} \right\} \quad \dots \quad (22)$$

In this case also pressure has a component which is out of phase with the velocity of air particles by 90° .

Schrodinger has calculated the loss of energy in the case of plane waves due to damping on account of heat conduction and viscosity with the help of Rayleigh's formula in the above case. If E represents

the energy at any height z , and E_s at the tropopause then $E = E_s e^{-Dz}$ where Dz represents the damping. And Dz is given by

$$Dz = \left\{ \frac{4\pi^2(\gamma-1)}{\gamma} q + \frac{16\pi^2 \eta}{3\rho} \right\} \frac{z}{\lambda^2 C_s} \quad \dots \quad (23)$$

q = thermometric conductivity = $\cdot 205 c_+ l$.

c_+ = mean square velocity of air particles.

l = mean free path of a molecule.

$= l_0 e^{11z}$, l_0 = the same at atmospheric pressure = $\cdot 959 \times 10^{-5}$.

$$\frac{\eta}{\rho} = \cdot 285 c_+ l; \gamma = 1\cdot 4, c_+ = C_s \sqrt{\frac{3}{\gamma}}.$$

Thus

$$\begin{aligned} Dz &= \left\{ \frac{4\pi^2 (\gamma-1) \times \cdot 503 \sqrt{3} l_0}{\sqrt{\gamma^3}} + \frac{16\pi^2 \times \cdot 285 \sqrt{3} l_0}{3\sqrt{\gamma}} \right\} \frac{e^{11z}}{\lambda^2} \\ &= \{8\cdot 36 + 21\cdot 74\} \times 10^{-5} \frac{z e^{11z}}{\lambda^2} \\ &= \frac{30\cdot 1}{\lambda^2} \frac{z e^{11z}}{10^{-5}} \quad \dots \quad \dots \quad \dots \quad \dots \quad (24) \end{aligned}$$

For a stretch of 1 kilometre at any height z

$$E = E_s e^{-D}$$

$$\text{Where } D = \frac{30\cdot 1 \times e^{11z}}{\lambda^2} \quad \dots \quad \dots \quad \dots \quad \dots \quad (25)$$

$$\text{or } \frac{D\lambda^2}{30\cdot 1} = e^{11z}$$

hence

$$z = \frac{1}{11} \left\{ 2 \log \lambda + \log \frac{-\log e^{-D}}{30\cdot 1} \right\} \quad \dots \quad \dots \quad (26)$$

For various values of $e^{-D} = \cdot 99, \cdot 9, \cdot 001$, Schrodinger has plotted graphs showing the relation between wave length and height for the values of total damping. These are shown in Fig. (4).

It is evident from the set of curves (p. 237) that for the same extinction the longer waves reach a greater height z , than shorter ones. The conclusion is drawn that long waves can reach upper atmospheres.

Passage of Sound Waves through Rarefied Atmospheres.

The objection raised by Schmidt whether it is possible for the sound waves to reach upper atmospheres on account of their rarefied

condition, can now be discussed in the light of the results obtained in the last section. The pressure at the heights supposed to be reached

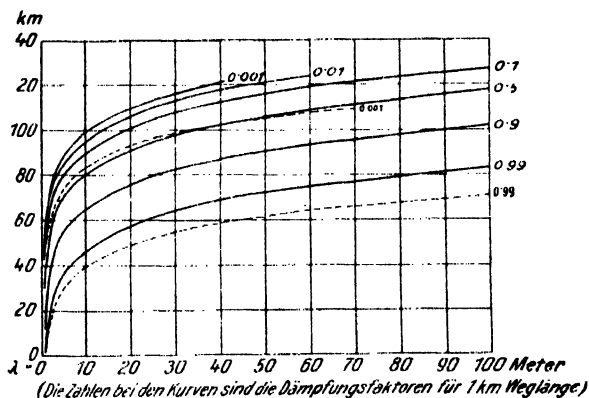


Fig. 4.

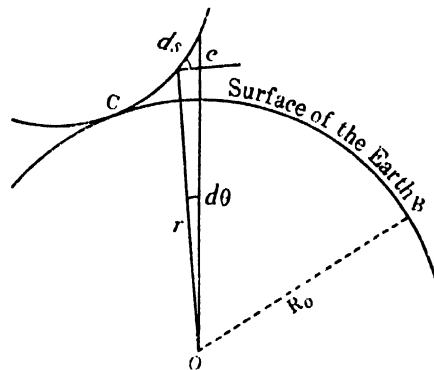
by sound waves is of the order of 10^{-11} mm at 50 km., and it becomes difficult to believe that sound waves can transmit sufficient amount of energy for its onward progression. It might be supposed that in the passage of waves from layer to layer of variable density a great deal of energy would be reflected, but Lord Rayleigh has shown that reflection is feeble if the transition of the medium is slow. Collected Works, Vol. I, p. 960. He writes "Admitting that reflection is due to suddenness of transition, we have still to enquire what degree of suddenness is requisite for reflection. It is not difficult to see that the quantity with which we are concerned is the thickness of the transitional layer—whether it is comparable to the wavelength." So that when the transition is slow there is but little reflection; when however the wavelength is large in comparison to the transitional layer, there is copious reflection. "If we consider waves with a period of $\frac{1}{10}$ we notice that the wavelength is of the order of 30 metres. The waves pass obliquely through the atmosphere so that the height interval is never greater than 10 metres; the normal change of temperature in such an interval is 0.06°C and the change of velocity is only 1 part in 10,000. The condition for propagation without reflection is therefore satisfied.

But the main question is whether wave motion is possible in a rarefied atmosphere. The condition for progression of waves is that the acoustic impedance of the medium should have a finite value. If the impedance at any point becomes infinite reflection results; if it

becomes zero, then again reflection takes place with a change of sign, and in this kind of reflection the question of suddenness comes in. If on the other hand we have a medium of very low impedance our enquiry is whether wave motion is possible in such a medium. If the impedance is zero, no wave motion can be produced. But in the case under consideration, the impedances of the two different types of upper atmospheres are given by (16) and (22), they are not zero, but very small; we have no definite information about the smallness of the impedance of the medium at which wave motion vanishes. What happens in the present case is that the small increase of pressure that results from the wave motion is overbalanced by the increased velocity of air particles, so that the energy transmitted per unit area per second on the average is practically the same for each layer in the upper atmospheres. Thus as the waves travel through rarefied layers of air the same amount of energy is carried forward, and after reflection is returned to the earth.

The Path of a Sound Ray in Upper Atmospheres.

Let CB represent the surface of the earth, and a ray of sound starts from C and proceeds along CP, the time taken to reach a given



Centre of the earth
Fig. 5.

point P is given by

$$t = \int \frac{ds}{c} \quad \dots \quad \dots \quad \dots \quad (27)$$

where ds is an element of the ray, and c is the velocity of sound at any height z . The actual path is one that makes the time shortest possible,

i.e., the integral (27) must have a minimum value. In terms of polar co-ordinates r , θ , measured from the centre of the earth, we have

$$t = \int \frac{1}{c} \left\{ \left(\frac{dr}{d\theta} \right)^2 + r^2 \right\} d\theta \quad \dots \quad \dots \quad \dots \quad (28)$$

Writing s for the integrand, and $\rho = \frac{dr}{d\theta}$ we must have

$$\delta \int s \, d\theta = 0$$

Since $s = f(rp)$, we have

$$\int \left(\frac{\partial s}{\partial r} \delta r + \frac{\partial s}{\partial \rho} \delta \rho \right) d\theta = 0$$

$$\text{i.e., } \int \left\{ \frac{\partial s}{\partial r} \delta r \delta \theta + \frac{\partial s}{\partial \rho} \delta \rho \right\} d\theta - \int \frac{\partial}{\partial \theta} \left(\frac{\partial s}{\partial \rho} \right) \delta r \delta \theta = 0$$

The second term vanishes at both limits C and P since δr is small and we get therefore

$$\int \left\{ \frac{\partial s}{\partial r} - \frac{\partial}{\partial \theta} \left(\frac{\partial s}{\partial \rho} \right) \right\} \delta r \delta \theta = 0$$

$$\text{Therefore, } \frac{\partial s}{\partial r} = \frac{\partial}{\partial \theta} \left(\frac{\partial s}{\partial \rho} \right)$$

And this can be integrated in the form

$s = \rho \frac{\partial s}{\partial \rho} + p$, where p is a constant independent of r and θ . On substituting the value of s and simplifying, we find

$$\frac{r^2}{c} = p \left\{ r^2 + \rho^2 \right\}^{\frac{1}{2}} \quad \dots \quad \dots \quad \dots \quad (29)$$

since $r \frac{d\theta}{ds} = \cos e$, we find

$$\frac{r \cos e}{c} = p. \quad \text{i.e.,}$$

$$\frac{r_1 \cos e_1}{c_1} = \frac{r_2 \cos e_2}{c_2} = \text{constant} \quad \dots \quad \dots \quad \dots \quad (30)$$

Since $r_1 = R_0 + r \rightarrow R_0$ since r is small, the above result leads to the law of refraction, *viz.*,

$$\frac{c}{\cos e} = V \text{ (constant)} \quad \dots \quad \dots \quad \dots \quad (31)$$

where V represents the velocity of sound in the region where the ray becomes parallel to the surface of the earth. This velocity is called

the "characteristic velocity" of the ray. The law can also be deduced in the following manner:—

Let $A B$ represent the wave front at any time t , and $A'B'$ at $t+\delta$ so that $OM=\sigma$, the radius of curvature of the ray.

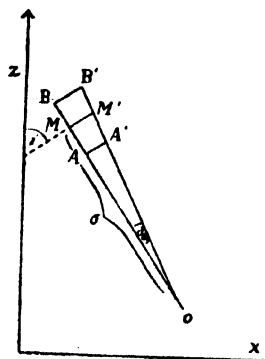


Fig. 6.

$$\text{Let } OA = \left(\sigma - \frac{d\sigma}{2} \right), \quad OB = \left(\sigma + \frac{d\sigma}{2} \right), \quad MM' = cdt$$

$$\text{then } AA' = \left(c - \frac{dc}{d\sigma} \frac{d\sigma}{2} \right) dt, \quad BB' = \left(c + \frac{dc}{d\sigma} \frac{d\sigma}{2} \right) dt.$$

$$\text{thus } d\theta = \frac{BB' - AA'}{AA'} = \frac{dc}{d\sigma} dt; \quad \text{while } \sigma = \frac{cdt}{d\theta}$$

$$\text{Therefore } \sigma = \frac{-c}{\frac{dc}{d\sigma}} = - \frac{c}{\frac{dc}{dx} \cos e} \dots \dots \dots (32)$$

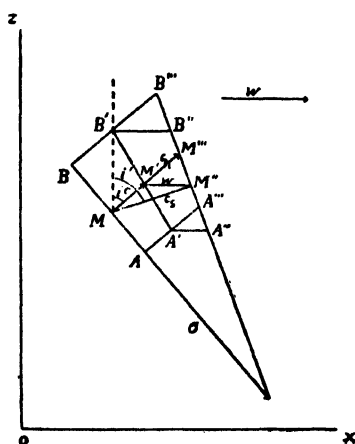


Fig. 7.

$$\text{Again since } \frac{-ds}{\sigma} = de$$

we find

$$-\frac{c}{\frac{dc}{dz} \cos e} = -\frac{ds}{de} = -\frac{dx}{\sin e de}$$

Hence $\frac{c}{\cos e} = V$ (const) the same as (31).

From Fig. (8) we observe that

$$\frac{dx}{ds} = \sin e, \text{ and } \frac{dz}{ds} = \cos e.$$

$$\text{hence } \frac{dx}{dz} = \cot e.$$

$$\text{Therefore } x = \int_0^h \cot e \, dz \quad \dots \quad \dots \quad \dots \quad \dots \quad (32.1)$$

where h represents the height reached by the ray.

$$\text{Further } dt = \frac{ds}{c} = \frac{dx}{c} \left\{ 1 + \left(\frac{dx}{dz} \right)^2 \right\}^{\frac{1}{2}}$$

and this can also be written in the form

$$dt = \frac{dx}{c \cos e} = \frac{\cot e \, dz}{c \cos e} = \frac{dz}{V \sin e \cos e}$$

$$\text{Therefore } T = \int_0^h \frac{dz}{V \sin e \cos e}$$

Effect of Wind.

We shall now consider the effect of wind in modifying the course of a ray. We assume wind along horizontal directions only and that

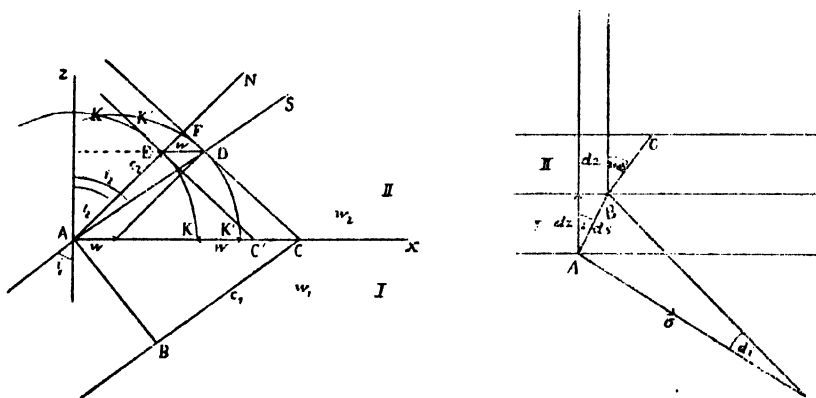


Fig. 8.

its velocity depends upon the height above the surface of the earth of the point under consideration,

Let AB represent the wave front Fig. (7) at time t , and A'B' at $t + \delta t$, so that $MM' = cdt$ is the distance travelled by the wave along the wave normal reaching the point S from which place it is carried horizontally by the wind along $M'M'' = \omega dt$, reaching the point M'' . The path of the ray is MM'' . Similarly, A' and B' represent the position of A and B after an interval δt . It is found at once that the velocity along the wave normal is

$$c_n = c + \omega \cos e_n \quad \dots \quad \dots \quad \dots \quad (33)$$

where e_n is the angle made by the wave normal with the horizontal, and ω the wind velocity.

If σ' be the radius of curvature of the wave normal, it is given by

$$\sigma' = - \frac{c_n}{\frac{dc_n}{dz} \cos e_n} = \frac{dz}{\sin e_n \frac{de_n}{dz}} \quad \dots \quad \dots \quad \dots \quad (34)$$

vide (32). Therefore

$$\frac{dc_n}{c_n} = \frac{\sin e_n}{\cos e_n} de_n$$

$$\frac{c_n}{\cos e_n} = V' \text{ constant}$$

$$\frac{c}{\cos e_n} + \omega = \frac{c_0}{\cos e_0} + \omega_0 = V' \quad \dots \quad \dots \quad (35)$$

See Barton's Text-Book of Sound, page 101.

Further

$$c_s = \sqrt{c^2 + \omega^2 + 2c\omega \cos e_n}$$

$$= \omega \cos e_n + \sqrt{c^2 - \omega^2 \sin^2 e_n}$$

where e_s is the angle made by the ray with the horizontal.

Also

$$c \sin e_n = c_s \sin e_s$$

$$\cot e_s = \cot e_n + \frac{\omega}{c \sin e_n}$$

$$\text{And } \cot(e_n - e_s) = \cot e_n + \frac{c}{\sin e_n}$$

(36)

From Fig. (8) we see

$$dx_n = c_n \cos e_n dt$$

$$dz_n = c_n \sin e_n dt$$

Thus for the wave normal omitting suffix n

$$\frac{dx}{dz} = \frac{\cos e_0}{\sqrt{(1 + Bz)^2 - \cos^2 e_0}} = \frac{\cos e_0}{\sqrt{2Bz + \sin^2 e_0}} \quad \dots \quad \dots \quad (37)$$

Since $\cos e = \frac{c}{(A' - \omega)}$, where $A' = \frac{c_0}{\cos e_0} + \omega$,

Hence $\frac{A' - \omega}{c} = \frac{1 + Bz}{\cos e_0}$, where $B = \beta - \frac{\omega_0 \alpha}{c_0} - \cos e_0$,

$$c = c_0 (1 - \beta z) \text{ and } \omega = \omega_0 (1 + \alpha z). \quad \dots \quad \dots \quad \dots \quad (37.1)$$

From (37) we get $x = \frac{\cos e_0}{B} (\sqrt{2Bz + \sin^2 e_0} - \sin e_0)$

$$\text{which becomes } x = \sqrt{\frac{2z}{B}} \text{ when } e_0 = 0 \quad \dots \quad \dots \quad \dots \quad (38)$$

For the ray $dx_s = (c \cos e + \omega) dt$,

and disregarding the difference between e_s and e .

$$dz_s = c \sin e \, dt$$

$$\text{Therefore } \frac{dx}{dz} = \frac{c \cos e + \omega}{c \sin e} \text{ (ray)}$$

Substituting the values of c , $\cos e$, etc., in terms of c_0 , $\cos e_0$, we get

$$\begin{aligned} \frac{dx}{dz} &= \frac{\cos e_0 + (\omega/c) (1 + Bz)}{\sqrt{(1 + Bz)^2 - \cos^2 e_0}} \\ &= \frac{\cos e_0}{\sqrt{2Bz + \sin^2 e_0}} + \frac{\omega}{c} \frac{1}{\sqrt{(1 + Bz)^2 - (1 - \beta z)^2 \cos^2 e_0}} \quad \dots \quad (38.1) \end{aligned}$$

$$\text{i.e., } \frac{dx}{dz} = \frac{\cos e_0}{\sqrt{2Bz + \sin^2 e_0}} + \frac{\omega_0}{c_0} [1 + (\alpha + \beta)z] \frac{1}{\sqrt{2Bz \cos^2 e_0 + \sin^2 e_0}}$$

Hence

$$\begin{aligned} x &= \frac{\cos e_0}{B} \sqrt{2Bz + \sin^2 e_0} - \sin e_0 + \frac{\omega_0}{c_0} \left\{ 1 - \frac{(\alpha + \beta)(\sin^2 e_0 - B \cos^2 e_0 z)}{3B \cos^2 e_0} \right\} \\ &\quad \times \left(\frac{\sqrt{2Bz \cos^2 e_0 + \sin^2 e_0} - \sin e_0}{B \cos^2 e_0} \right) \quad \dots \quad (39) \end{aligned}$$

which for $e_0 = 0$ gives

$$x = \left[1 + \frac{\omega_0}{c_0} \left(1 + \frac{(\alpha + \beta)z}{3} \right) \right] \sqrt{2\sigma_1 z} \quad \dots \quad \dots \quad (40)$$

$$\text{where } \sigma_1 = 1 / \left(\beta - \frac{\omega_0 \alpha}{c_0} \right).$$

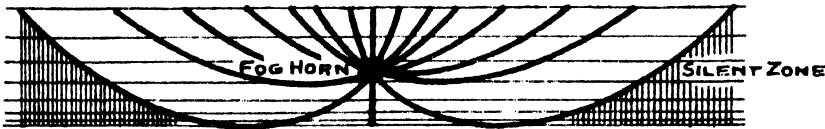


Fig. 9.

These formulae are due to Emden *Meteorologische Zeiterhrift*, Vol. 35, p. 29 (1918).

Fig. 9 shows the sound rays for a source situated at a certain height. The rays have been drawn on the supposition that the temperature decreases upwards, and when no wind prevails.

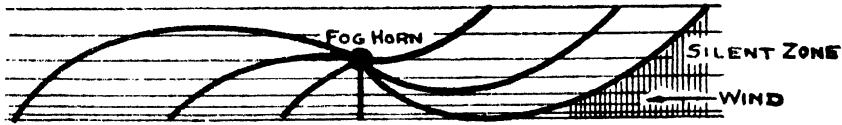


Fig. 10.

Wind increasing upwards.

Fig. (10) shows the rays when the same temperature gradient prevails with a wind from right to left increasing upwards. The occurrence of a silent zone in the right is to be noted. Audibility is therefore greater in the direction of the wind than in the opposite direction. Fig. (11) illustrates a specific case given by Emden in which we find the source is situated on the surface of the earth, and two rays have been drawn which start horizontally.

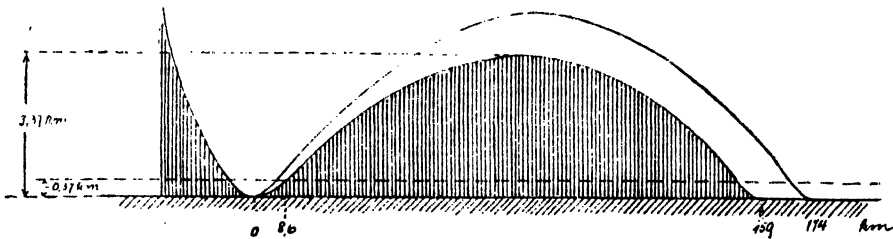


Fig. 11.

Wind is travelling from left to right. It is assumed in the above example that wind is still up to 37 km., and then it increases by 4 metres per kilometres of ascent, *i.e.*, $\omega_0 \alpha = 4 \times 10^{-3}$. Temperature of earth is taken to be 21°C , *i.e.*, 294°A , $\beta = \frac{1}{2 \times 46000}$ while $\frac{dT}{dh} = - 62 \times 10^{-2}$ metres. The ray which starts horizontally makes an angle of 85.04° with the vertical on reaching a height of 37 km., and then it begins to turn round and reach a maximum height of 3.37 from the earth's surface; and then it is returned back reaching the surface at a distance of 159 km.

Since $T_0 = 294$, $C_0 = 342$ metres.

$$C \text{ at } 37 \text{ km, is } C = 342 \left(1 - \frac{31 \times 370}{294} \right)$$

i.e., $C = 341$ metres.

By equation (35) $\cos e = 341/342 = .996$.

Therefore $e = 5^\circ$.

$$\begin{aligned} B &= \beta - \frac{\omega_0 \alpha}{c} .996 \text{ vide formula (37)} \\ &= 1.05 \times 10^{-5} - \frac{4 \times 10^{-3} \times .996}{341} \\ &= -1.22 \times 10^{-6}. \end{aligned}$$

At the maximum reached $\frac{dz}{dx} = 0$, hence by (38.1)

$$1 + Bz = \cos e_0, \quad e_0 = 5^\circ$$

$$1 - 1.2 \times 10^{-5} \times z = .9964$$

$$z = 3.0 \text{ km.}$$

$$\text{Total height} = 3.0 + .37 = 3.37 \text{ km.}$$

The distance x_1 travelled by the ray in the still atmosphere in the time it reaches the height of .37 km., is by (40) 8.6 km., and the distance x_2 covered by the ray during the interval it reaches its maximum height, is given by (39) remembering $e_0 = 5^\circ$, x_2 is found to be 70.8 km.

Hence, the total distance covered by the ray when the ray reaches the surface of the earth is $2(8.6 + 70.8) = 159 \text{ km.}$

Case 2.—Wind velocity increases from the surface of the earth to a height of .905 km., and then it diminishes.

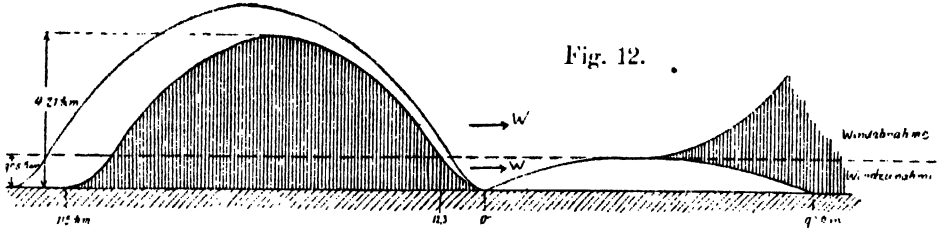
$$\begin{aligned} \frac{dT}{dh} &= -.30 \times 10^{-3}, \\ B &= \frac{1}{2 \times 90,000.} \left\{ \begin{array}{l} \text{up to } .905 \text{ km.} \\ \omega_0 \alpha = \frac{1}{470} \end{array} \right. \end{aligned}$$

The ray which reaches the height of .905 km. makes an angle of 87.7° with the vertical; rays which make smaller angles than 87.7° with the vertical are refracted away from the earth, and they never reach the surface of the earth. All the rays starting with an inclination lying between 87.7° and 90° with the vertical, rise up and are returned back to the surface of the earth. The horizontal distance covered by the trajectory is 90 km. for the last ray, *viz.*, the one starting with an inclination of 87.7° .

On the side *against the wind* the ray which starts horizontally makes an angle of 81.55° with the vertical on reaching a height of .905 km., and during this time it has travelled a horizontal distance of 12.3 km.

Beyond 905 km. $\frac{d\Gamma}{dh} = -365$, $\beta = \frac{1}{2 \times 75,000}$ and $\omega_0 \alpha = -\frac{1}{305}$.

The maximum height reached by the ray starting with an inclination of 81.55° is found to be 3.3 km. from that point, while the



horizontal distance covered is 45 km. Thus maximum height from the surface of the earth is 4.21 and the total distance travelled horizontally is $2(12.3 + 45) = 114.6$ km. The portion shaded in the diagrams shows zones of silence.

Evaluation of Δ and Z_{max} .

Now we are in a position to determine the total horizontal distance travelled by a ray. In the troposphere we have to use (32.1), viz.,

$$x = \int_{e_0}^e \cot e \, dz, \text{ which with the help of (37.1) yields}$$

$$x_1 = \frac{1}{\beta} \cos e_0 \left\{ \sin e - \sin e_0 \right\}$$

in the absence of the wind.

In the stratosphere

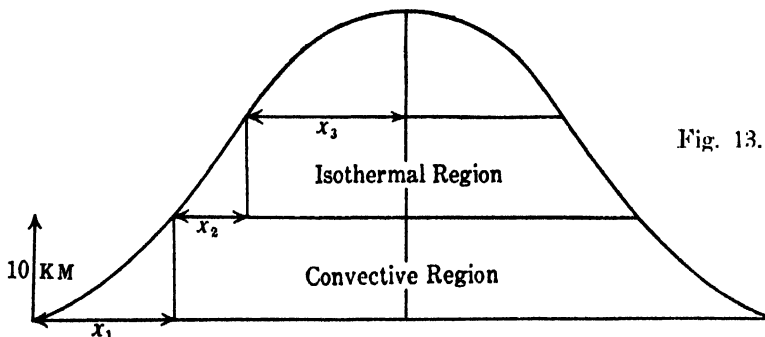
$$x_2 = h_s \cot e_s$$

where h_s is the extension of the isothermal region.

Taking $T_0 = 290^\circ \text{A}$, $T = 220^\circ \text{A}$

$C_0 = 340$, $C_s = 296$, and height of tropopause 10 km.; we

find $\beta = \frac{1}{77.3}$ when z is expressed in kilometres.



$$\cos e = \frac{296}{340} \cos e_0$$

$$h_s = 10 \text{ km.}$$

$\cos e_0$	$\sin e_0$	e	$\sin e$	$2x_1$	$2x_2$	$2(x_1 + x_2)$
'98	'198	$31^\circ - 30'$	'522	51'0 km.	32'8	83'8 km.
'96	'310	$33^\circ - 24'$	'550	38'6	30'2	68'8
'90	'431	$38^\circ - 42'$	'625	32'6	25'0	57'6

$\Delta = (x_1 + x_2 + x_3)$, hence when $(x_1 + x_2)$ are calculated and Δ is observed on the earth x_3 can be found.

Estimate of the height of the trajectory above the isothermal region by Wiechert's method:—

The method depends upon the use of Abelian transformation of an integral equation which is also used in the evaluation of the velocity of seismic waves inside the earth's surface, and the following account is an adaptation of the method found in Jeffry's Book "The Earth," and Bateman's paper Philosophical Magazine, Vol. 19, p. 576 (1910) in the absence of the Wiechert's paper which could not be available to the author.

Our object is to determine the maximum height reached by a sound ray above the isothermal region when Δ and the initial value of e_0 is known; in the isothermal region, the ordinary formulae (39) and (40) are used, while x_3 is calculated from the observed measurement of Δ as mentioned before.

From (29) we find
$$\frac{dr}{d\theta} = \pm r \left\{ \frac{r^2}{p^2 c^2} - 1 \right\}^{\frac{1}{2}}$$

$$\theta = \pm \int \frac{p dr}{r \left\{ \frac{r^2}{c^2} - p^2 \right\}^{\frac{1}{2}}} \dots \dots (41)$$

Referring to Fig. (5) we observe that the ray moves upwards, hence $dr/d\theta$ is positive. We must therefore take the positive value for the integral (41). When the ray becomes parallel to the surface of the earth $\frac{dr}{d\theta} = 0$ and $r = pc$, where c means the velocity of sound for

the particular value of r . If χ represents the corresponding value of θ as measured from the upper limit of the isothermal region at which point r has a value $r=R_1$, then

$$\chi = \int_{R_1}^{re} \frac{p}{r} \left\{ \frac{r^2}{c^2} - p^2 \right\}^{\frac{1}{2}} dr \quad \dots \quad (42)$$

Writing $\eta = r/c$, eqn. (42) becomes

$$\chi = p \int_{R_1/c_s}^{\eta} \frac{d \log r}{d \eta} \frac{d \eta}{\sqrt{\eta^2 - p^2}} \quad \dots \quad (43)$$

$$f(p) = p \int_{R_1/c_s}^{\eta} \frac{d \log r}{d \eta} \frac{d \eta}{\sqrt{\eta^2 - p^2}} \quad \dots \quad (43)$$

The above integral equation has been solved by Bateman, and his result is

$$\frac{d}{d \eta} \log r = - \frac{2 \eta}{\pi} \frac{d}{d \eta} \int_{R_1/c_s}^{\eta} \frac{f(p) dp}{p^2 \sqrt{p^2 - \eta^2}}$$

$$i. e., \log \frac{r}{R_1} = - \frac{2}{\pi} \int_{R_1/c_s}^{\eta} \frac{\chi dp}{\sqrt{p^2 - \eta^2}} \quad \dots \quad (44)$$

Or integrating by parts we find

$$\log \frac{r}{R_1} = - \frac{2}{\pi} \left[\left(\chi \cosh^{-1} \frac{p}{\eta} \right)_{p=\frac{R_1}{c_s}}^{p=\eta} - \int \cosh^{-1} \frac{p}{\eta} d \chi \right] \quad \dots \quad (45)$$

The first term is zero at both limits, since at the upper limit $\cosh^{-1} \frac{p}{\eta} = 0$ when $p = \eta$, and again at the lower limit when $p = R_1/c_s$, the inclination e of the ray at this region is zero, i.e., it is parallel to earth's surface, and for this ray $\chi = 0$. Thus the above integral reduces to

$$\log \frac{r}{R_1} = \frac{2}{\pi} \int_0^{\chi} \cosh^{-1} \frac{p}{\eta} d \chi \quad \dots \quad (16)$$

Here p is the variable, and its value is

$$p = \frac{r \cos e}{c} = \frac{R_1 \cos e_s}{c_s} \quad \text{by (30)}$$

While $\eta = \frac{r}{c}$ where r represents the specific value of the radius vector of the ray which has become parallel to the earth's surface at the particular height, c is therefore zero. And for this ray

$$\frac{r}{c} = \frac{R_1 \cos e_s \Delta}{c_s} \quad \text{by (30).}$$

Where $e_s \Delta$ is the inclination of the ray at the upper boundary of the isothermal region.

$$\text{Therefore } \frac{p}{\eta} = \frac{\cos e_s}{\cos e_s \Delta}, \text{ and}$$

$$\log \frac{(R_1 + h)}{R_1} = \frac{2}{\pi} \frac{1}{2(R_1 + h)} \int q \, d\Delta$$

$$\text{where } \Delta_s = \left\{ \Delta - 2(x_1 \times x_2) \right\}, \text{ and } q = \cosh^{-1} \frac{\cos e_s}{\cos e_s \Delta}$$

$$\text{Thus } h = \frac{1}{\pi} \int_0^\Delta q \, d\Delta_s,$$

$$\cosh q = \left(1 + \frac{q^2}{2} \right)$$

$$q = \frac{\sqrt{2}}{\cos e_s \Delta} \left\{ \cos e_s - \cos e_s \Delta \right\}$$

$$\text{Hence } h = \frac{\sqrt{2}}{\pi \cos e_s \Delta} \int_0^\Delta d\Delta \left\{ \cos e_s - \cos e_s \Delta \right\} \quad \dots \quad (47)$$

If i represent the angle which a ray makes with the vertical, then (47) can be written in the form

$$h = \frac{\sqrt{2}}{\pi \sin i_s \Delta} \int_0^\Delta d\Delta \left\{ \sin i_s - \sin i_s \Delta \right\} \quad \dots \quad (47.1)$$

Example :—

Table (2)

Station	Δ km.	t sec	diff. Δ	t	$\sin i_o$
Heinersdrf	201	702			
Roda cherburn	208	721			
Gettingen	215	736	75	220	1.0
Bamburg	283	940			
Rotlenburg	358	1142	75	202	915

Table 3

Δ km.	$\sin i_o$	$\sin i_s$	$2(x_1 + x_2)$	x_3 km.
208	'98	'85	66	142
283	'96	'83	58	225
358	'90	'78	48	310

Table 4

Δ_s	0	142	225	310	
$\sin i_s$	1	'85	'83	'78	

$$\sin i_s \Delta = 78$$

Δ_s	$\sin i_s$	$\sin i_s - \sin i_s \Delta$	$(\sin i_s - \sin i_s \Delta)^{\frac{1}{2}}$
0	1	'22	'47
142	'85	67	'26
225	83	'05	'22
310	'78	'00	'00

Since $c = c_0 / \sin i_o = 344 / '90$

= 382 metres

Total height of the ray = $12 + \frac{1}{2}91$

= 57 km.

Meiser's Scheme for the Determination of Azimuth and Angle of Incidence.

The scheme proposed by Meiser Zeitsfur Geoph, Vol. 3, p. 287 (1927) to determine both the angle of incidence and azimuth will now be described: If x, y, z be the coordinates of one point, and the line joining the origin and the above point makes angles α, β, γ respectively with x, y and z axes, and $t = T - T_0$ —the time of transit of the

sound wave between the point under consideration and the origin, then

$$x \cos \alpha + y \cos \beta + z \cos \gamma = C_0 (T - T_0)$$

Station.	Coordinates	time.
P_0	O O O	T_0
P_1	x_1 O z_1	T_1
P_2	x_2 y_2 z_2	T_2

$$\left. \begin{aligned} x_1 \cos \alpha_1 + z_1 \cos \gamma &= C_0 (T_1 - T_0) = \Delta_1 \\ x_2 \cos \alpha_2 + y_2 \cos \beta + z_2 \cos \gamma &= (T_2 - T_0) C_0 = \Delta_2 \end{aligned} \right\} \dots (48)$$

since the wave normal makes the same angle at the three stations with the x , y , and z axes :

$$\text{Also, } \cos^2 \alpha + \cos^2 \beta + \cos^2 \gamma = 1$$

If i be the angle with the vertical then

$$\cos i = \cos \gamma = \frac{\Delta - \sqrt{(\Delta^2 + B)C}}{D} \quad \dots \quad \dots \quad \dots (49)$$

$$A = \left[\frac{\Delta_1}{x_1} \cdot \frac{z_1}{x_1} + \left(\frac{z_2}{y_2} - \frac{x_2}{y_2} \cdot \frac{z_1}{x_1} \right) \left(\frac{\Delta}{y_2} - \frac{x_2}{y_2} \cdot \frac{\Delta_1}{x_1} \right) \right]$$

$$B = \left[1 - \left(\frac{\Delta_1}{x_1} \right)^2 - \left(\frac{\Delta_2}{y_2} - \frac{x_2}{y_2} \cdot \frac{\Delta_1}{x_1} \right)^2 \right]$$

$$C = \left[1 + \left(\frac{z_1}{x_1} \right)^2 + \left(\frac{z_2}{y_2} - \frac{x_2}{y_2} \cdot \frac{z_1}{x_1} \right)^2 \right]$$

$$D = \left[1 + \left(\frac{z_1}{x_1} \right)^2 + \left(\frac{z_2}{y_2} - \frac{x_2}{y_2} \cdot \frac{z_1}{x_1} \right)^2 \right]$$

$$\cos \alpha = \left(\frac{\Delta_1}{x_1} - \frac{z_1}{x_1} \cos \gamma \right); \cos \beta = \left\{ \frac{\Delta_2}{y_2} - \frac{x_2}{y_2} \cdot \frac{\Delta_1}{x_1} - \left(\frac{z_2}{y_2} - \frac{x_2}{y_2} \cdot \frac{z_1}{x_1} \right) \times \cos \gamma \right\}$$

$$\tan \varphi = \frac{\cos \beta}{\cos \alpha} = \frac{\frac{\Delta_2}{y_2} - \frac{x_2}{y_2} \cdot \frac{\Delta_1}{x_1} - \left(\frac{z_2}{y_2} - \frac{x_2}{y_2} \cdot \frac{z_1}{x_1} \right) \cos \gamma}{\left(\frac{\Delta_1}{x_1} - \frac{z_1}{x_1} \cos \gamma \right)} \quad (50)$$

Put $z_1 = z_2 = 0$, then

$$\cos \alpha = \frac{\Delta_1}{x_1}; \cos \beta = \frac{\Delta_2}{y_2} - \frac{x_2}{y_2} \cdot \frac{\Delta_1}{x_1} \quad \dots \quad \dots \quad \dots (51)$$

$$\left. \begin{aligned} \cos i &= \left\{ 1 - \left(\frac{\Delta_1}{x_1} \right)^2 - \left(\frac{\Delta_2}{y_2} - \frac{x_2}{y_2} \cdot \frac{\Delta_1}{x_1} \right)^2 \right\}^{\frac{1}{2}}; \\ \text{and } \sin i &= \left\{ \left(\frac{\Delta_1}{x_1} \right)^2 + \left(\frac{\Delta_2}{y_2} - \frac{x_2}{y_2} \cdot \frac{\Delta_1}{x_1} \right)^2 \right\}^{\frac{1}{2}} \\ \tan \varphi &= \left(\frac{\Delta_2}{y_2} - \frac{x_2}{y_2} \cdot \frac{\Delta_1}{x_1} \right) / \left(\frac{\Delta_1}{x_1} \right) \end{aligned} \right\} \quad \dots \quad \dots (52)$$

	x	y	z	time
P_0	0	0	0	T_0
P_1	-841	0	+33	T_1
P_2	-26.5	450	0	

Apparatus	Wind	Temp.
a	2m/sec.	20°C
bc	still $\pm$ 2m/sec.	18°C
de	$\pm$ 2m/sec.	18°C

21st July, 1927

$T_1 - T_0$		$T_2 - T_0$			
1	2.31	-12	15	9°	} 18 ^h 46 ^m
2	2.28	-12	17	9°	
3	2.23	-15	20	10°	
b					
1	2.35	-20	9	12	} 19 ^h 41 ^m
2	2.33	-16	13	11	
3	2.32	-15	14	10	
c					
1	2.36	-21	13	13	} 19 ^h 46 ^m
2	2.36	-07	13	6	
3	2.21	-18	18	12	
4	2.31	-13	16	9	

22nd July, 1927

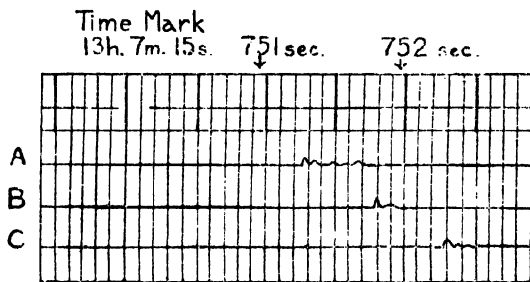
d	$T_1 - T_0$	$T_2 - T_0$	e	
1	2.11	-25	25	16
2	2.12	-22	25	14
3	2.05	-20	29	14
4	2.04	-26	27	17
5	2.12	-25	24	18

} 01^h - 21^m

1	2'22	-20	20'	13°	} 01" - 26"
2	2'19	-24	21°	15°	
3	2'27	-20	17°	13°	
4	2'32	-13	15°	9°	

Sound Ranging at Woolwich.

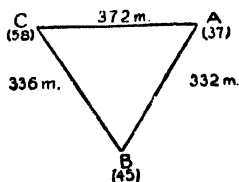
Professor Whipple was able to organise sound ranging stations round Woolwich to a distance of about 250 km. Signals were broadcast before the explosion. In the beginning 16" guns were used, but later on it was found that even waves produced by 4" guns could be recorded by hot wire microphones.



Section of Microphone Record: 3 Microphones.

Time of Passage to Microphone A = 751 sec.

Intervals between Microphones, AB = .51 sec., AC = 1.02 sec.



Lay out of Station at Cefn Mably.



Approach of an Airwave.
(Vertical Section).

Dip of CA = $\alpha = 3\frac{1}{2}^\circ$. Velocity of Sound at 295°A = $v = 343.9$ m/s.

$$1 + \alpha = 19\frac{1}{2}^\circ,$$

$$i = 16^\circ, \quad w = v \cdot \sec i = 358 \text{ m/s.}$$

Fig. (14)

Plate (1) shows the record at Cefn Mably on June 17 (1930) of explosions from Woolwich. In order to get the characteristic velocity

the following procedure was adopted. Three microphones were placed at three stations A, B and C such that the distances AB, BC are very nearly equal. Fig. (14) shows the arrangement. The waves reached the microphones in the order A, B and C, and the intervals between the receptions at A and B, B and C were equal. In the vertical section a sound ray is drawn perpendicular to the wave front. The inclination of the ray is found out by comparing the distance between the microphones with the distance travelled by the wave front in the time between the receptions, allowance being made for the dip of the line between the microphones. In the present case

$$C_0 = 343.9 \text{ metres, dip of CA} = 3\frac{1}{2}^\circ.$$

$$CA = 372 \text{ metres.}$$

Since $\cos(e + \alpha) = \frac{C_0 \Delta t}{CA}$, where Δt is the time interval between the reception at C and A,

$$\cos(e + \alpha) = \frac{343.9 \times 1.02}{372} = .9426$$

Thus $e + \alpha = 19^\circ - 30'$, and $e = 16^\circ$.

And the characteristic velocity $V = c_0 \sec e = 358$.

Professor Whipple has plotted a chart of 'delays' of the waves recorded at different times and seasons. The 'delay' is the twice difference between the actual time of reception and the time that a *direct* wave from the source would take to reach the point. The *latter time* is calculated on the basis of sound velocity 3 secs. for 1 km. For example, if a wave takes 761 seconds to reach a station which is at a distance of 222.5 km. from Woolwich then the delay is 94 seconds. From the chart Fig. 15 it will be observed that the differences between the times taken by the waves to travel in different directions are small. The excess observations in July is due in part to the greater number of opportunities. There is a tendency for the time of passage to be least in July and considerably greater in April and September. The small number of crosses in the third panel shows how rarely waves travelling to N.N.W. come to ground at Nottingham, 183 km. from Woolwich.

The Height of a Trajectory.

We have observed that the characteristic velocity V can be calculated provided the angle of descent is known. When wind is

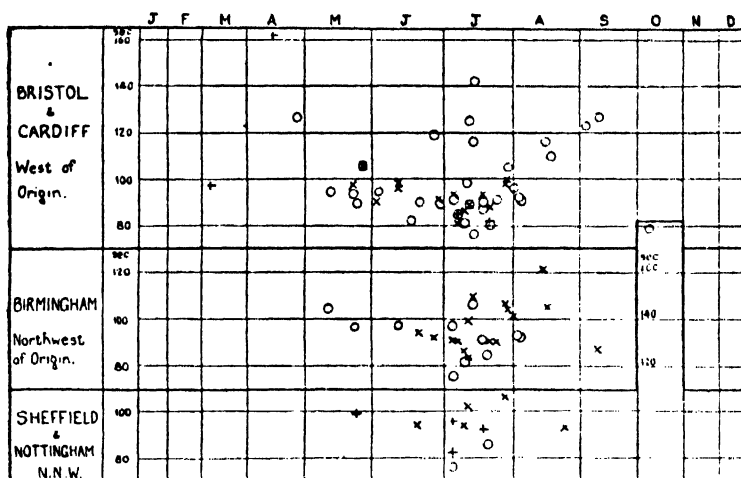


Fig. 15

present at higher atmosphere it has to be taken into account. In fact the formula (35) has to be used. The characteristic velocities found by Whipple are mostly about 350 m/s, about 10 m/s greater than the velocity of sound at the temperatures which prevail near the ground in summer. On some occasions Whipple obtained so high values as 420 m/s corresponding to an angle of descent of 35° which he attributes to very strong wind aloft, otherwise it must be supposed "that the temperature at some height will be near 440°A or 70° above boiling point of water."

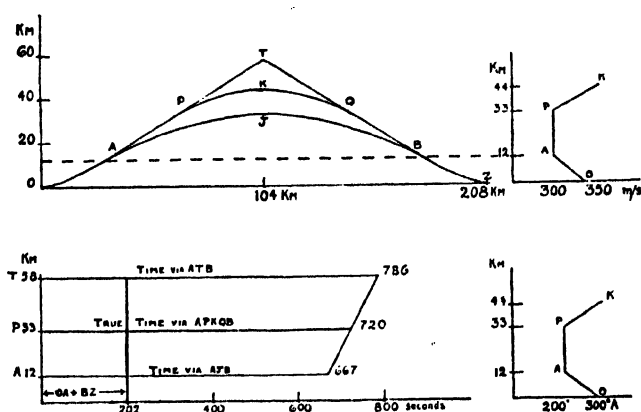


Fig. 16

In order to calculate the height Whipple worked out the shape of the trajectory of a sound ray according to the law of refraction up to the height sometimes exceeding 20 km.

Advantage has been taken of the meteorological information regarding temperature, and wind. Above this height the temperature remains constant (stratosphere), and we know from the records of other soundings that there is not likely any great increase of temperature for a considerable distance above this limit (12 km.) The simplest assumption is to :—

(1) neglect the upper winds

(2) to assume that there is at some height or other, a transition from constant temperature to a steady gradient of temperature (Whipple).

Fig. (16) has been drawn to illustrate a simple case. The following data are assumed :

The time of passage over a distance 208 km. is 720 seconds. The angle of descent is 11.5° ; the temperature of ground level is 295°A , while the height of tropopause is taken to be 12 km. The temperature falls uniformly in the troposphere, and the temperature of the stratosphere boundary (lower) is 220°A .

The characteristic velocity comes out

$$V = 344 \times \sec. 11.5^\circ$$

$$= 351 \text{ m/s.}$$

The ray from the ground level to the stratosphere boundary is convex to the surface of the earth. From the stratosphere boundary the ray will become straight, and will bend, *i.e.*, become concave to the surface of the earth, at some unknown height when the velocity of sound begins to increase. Whipple considers two extreme cases, *viz* :

(1) Sudden reflection at a point T, and (2) that the region of constant temperature is of small depth and that the velocity of sound increases from 12 km. upwards uniformly. The ray follows the curve AJB. The times for the trajectories OATBZ and OAJBZ are found to be 786 sec. and 667 sec. respectively. Now the actual time is 720 secs. Whipple makes a compromise to estimate the height of P, the transition from the straight to the curved part of the ray. With P at 33 km. and K at 44 km., the time of passage along the trajectories OAPQBZ has the desired value of 720 sec. By such calculations Whipple finds that in summer the height of the air wave is a little over 40 km. A composite diagram showing several trajectories shows that the inner boundary of

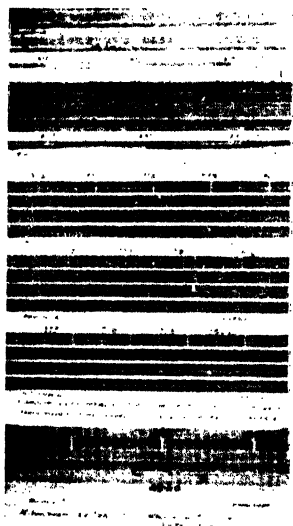


Plate I

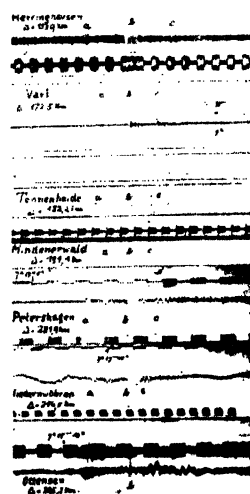


Plate II

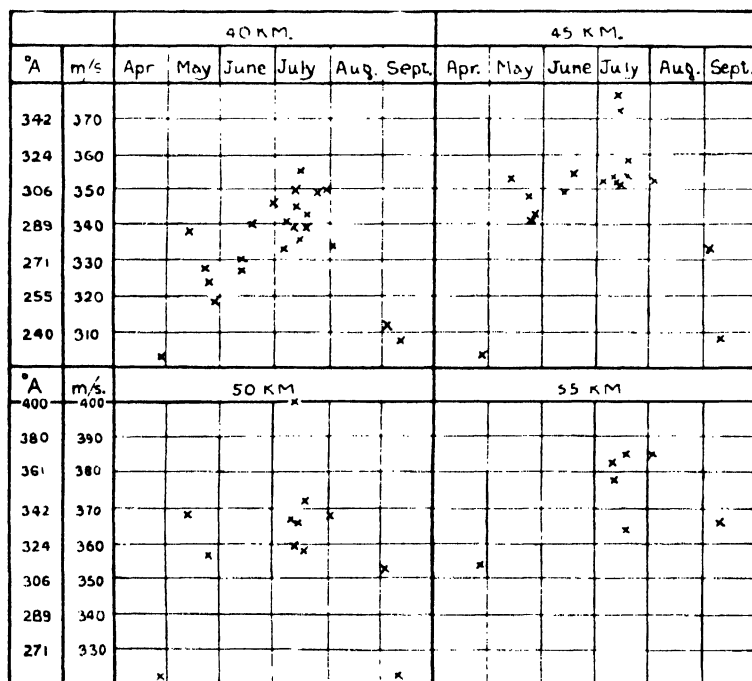


Fig. 18.—The velocity of transmission of air waves of certain heights and the corresponding apparent temperature.

the abnormal reception is sharp: see Fig. (17). Fig. 18 shows the annual variation of temperatures at 40, 45, 50 and 55 km. heights above the earth's surface as calculated by the method explained above. It will

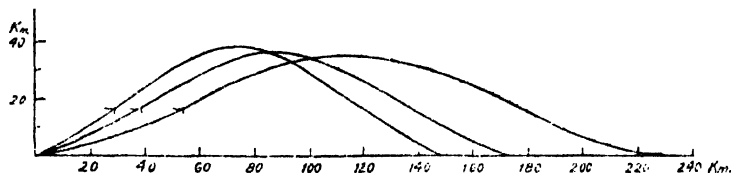


Fig. 17

be seen that the velocity of sound travelling westward in July at a height of 40 km. is greater by 30 m/s than the velocity in September. The same remark applies to the velocities at 45 km. but to obtain a definite conclusion, the velocity variations in different directions should be studied, and then the effects of wind can be eliminated

Fig. 18

The Oldebroek explosions Latitude, $52^{\circ} 54'$

Longitude, 6° East.

The international commission for the investigations of the upper

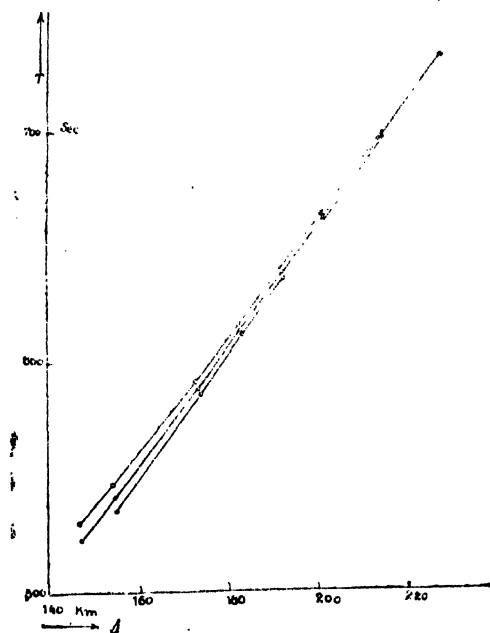


Fig. 19

atmospheres organised a series of explosions at Oldebroek (Holland) in winter. Explosions were recorded by undographs at 21 different places

ranging from 100 km. to 419 km. distant from Oldebrock, of which twelve stations were installed at intervals of 10 km. in line to the east of Oldebrock, and the more distant ones were the Institute of Jena, Meteorologicische Magnetische Observatorium, Potsdam, Aerorautische Observatorium, Lindenburg, and Geographisch-physikalische Institute, Göttingen, etc. The explosions were timed 7 h. 0 m. and 7 h. 06 m. Plate (II) gives a picture of the record of sound pulses. It will be seen that three pulses are recognised, marked *a*, *b* and *c* in the picture. At the two nearest stations only the normal wave was recorded, and in the case the stations where the anomalous wave arrived, the time arrivals are plotted against distance. *Zeits. f. Geo. Phys.*, p. 182

As was anticipated the sound ranging stations in England did not receive the waves. The following table gives the difference Δ between the distances of two stations and *T*, the difference of time arrivals of the anomalous wave.

Stations	distance	time
	km.	Sec.
Niewedde—Herringhausen	6.67	16.8
Herringhausen—Varl	18.61	48.1
Varl—Tonnenheide	9.73	26.3
Tonnenheide—Mindenerwald	8.86	24.1
Mindenerwald—Petershagen	10.75	30.4
Petershagen—Niedernwohren	12.18	34.7
Niedernwohren—Oltonsen	11.19	33.2

The delay of the waves was compared to the standard time of one second per 335 metres. It was found that the 'delay' was 75 sec. at the nearest station at 148 km., and fell off to 61 sec. at the ninth station 225.5 km. The falling off of the delay with increasing distance means the decrease of the characteristic velocity *V*, hence the waves arriving at the nearest stations must have come from a steep trajectory as compared to flat ones for the more distant stations. The records

at the more distant stations were also of great interest. At Gottingen 289 km., the ordinary anomalous wave with a delay of 60 sec. was followed after 105 sec. by a reflected wave. At Potsdam the ordinary anomalous wave was not recorded; but the reflected anomalous was followed after an interval of 100 sec. by a twice reflected wave. In these cases the recorded times are consistent with the hypothesis that the wave was reflected from the ground between their passages through the upper atmospheres. This phenomena has been observed many times in Germany, for instance Juterbog explosion, December 9, 1928—recorded at Königsberg 578 km.

Evaluation of the angle of descent :—

The formula used is the same as mentioned before, viz.,

$$\cos e = \frac{C_0 T}{\Delta \cos \alpha}$$

where α is seilicher Einfallswinkel, and C_0 is the velocity on the surface of the earth. $C_0 = 20.1 \sqrt{276} = 333.6$, 3 C being the temperature of the surface of the earth,

$$\alpha = 5^\circ, \cos \alpha = .996$$

Stations	e	Δ from Oldebrock
Herringhausen	$32^\circ - 15'$	151.2 km.
Varl	$27^\circ - 40'$	173.65
Tonnenheide	$24^\circ - 50'$	183.06
Mindenerwald	$24^\circ - 0'$	191.70
Petershagen	$18^\circ - 15'$	202.40
Niedernwohren	$17^\circ - 0'$	214.44
Ottensen	$4^\circ - 5'$	225.53

On the day of Oldebrock explosions there were two good balloon soundings at Lindenburg; with the aid of these Dr. Duckert prepared a table of temperatures and wind velocities up to a height of 19 km. He estimated that at the height of 19 km. wind had a component of 17 m/s from the west, and it was the same down to about 13 km., and then it diminished regularly. With the help of these data Duckert

prepared a table of velocities of sound towards east and west respectively. Fig. 19 shows Δ and time T of different stations while Fig. 20 shows the actual velocity of sound at different heights unaffected by wind.

Monsoon Winds in the Upper Atmospheres.

It has been mentioned before that there is a great difference in the audibility of sound between summer and winter conditions. The seasons at which sound is better heard at great distances, are summer for western countries while audibility is good in the east during winter.

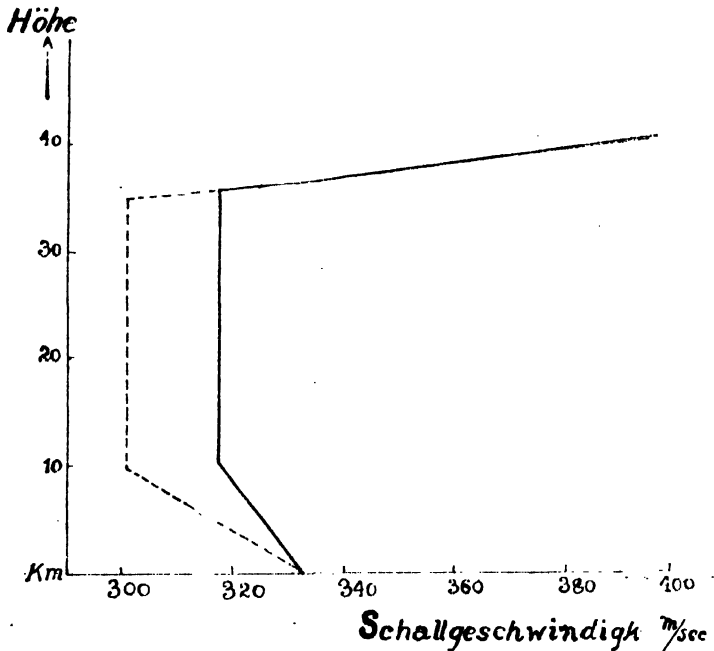


Fig. 20

It has been realised that this must be due to the wind at the heights where sound is returned to the earth. During summer there must be east wind, and during winter west wind must prevail. Whipple has suggested that the east Geostrophic wind reaches a maximum velocity of 18 m/sec in June, and in winter the west wind reaches a maximum of 22 m/sec in January. These refer to heights of 20 km. There may be some relation between ozone content and these winds since the former attains a maximum value in June and July.

THE FACTORIES WHICH CONTROL OUR LIVES

By MR. K. P. CHATTERJI, M.Sc.,

The activities of the body are mostly governed not only by the nervous system, but also by various chemical agencies. In man, the nervous system is the chief means, but chemical agencies do not play any inferior part. These chemical agencies are elaborated in certain factories in the body, which are called glands.

Anatomically and physiologically, many structures in our bodies are named as glands. Some of them are only too well-known to us, as for example, the ball-like things that appear in the neck, in the armpit and in the groin, the well-known swellings round the face in a case of mumps and the little lumps that appear in the neck in scrofula and in certain forms of tuberculosis. Glands have definite chemical functions. They are organs which manufacture out of the materials supplied to them by the blood, various chemical substances, and these they secrete. Most of the glands have tubes or ducts, through which the secretion is conveyed to some definite place, either to the surface of the body or to various internal organs, such as the stomach, the intestines, the bladder, etc. Such glands are said to be ducted glands, some examples of which are the sweat glands, the tear glands, the salivary glands, the gastric glands, etc.

There are glands, however, which have no ducts. Until recently these used to be regarded as functionless and therefore useless vestiges of unknown types of organs. It is now recognised that they also secrete, not through ducts, but they pour their juices directly in the blood stream which passes through them. This internal secretion (called hormone, from a Greek word, meaning 'I arouse to activity') is conveyed by the blood to various organs and tissues, where it exerts its influence on their functions. The name endocrine glands (from a Greek word, meaning 'to separate within') is given to these ductless glands.

The thyroid, the parathyroid, the adrenal, the pituitary and the pineal glands are some of those which secrete internally, and the pancreas and the gonad glands are some of those which produce both internal and external secretions coming from different cells in them.

In the early years of the present century (1902), Bayliss and Starling discovered that if an extract of certain organs were injected in the blood, many other organs were thrown into activity, as if a chemical messenger was running from one to the other and establishing co-ordination between them. The name hormone was introduced by them for such activating agents as was imagined to be functioning. The word is used in a slightly different sense now, but the change is insignificant.

The hormone, like the vitamin, does not contribute gross material to the body, but is nevertheless extremely essential in the functioning of our organs. Hormones and vitamins seem to have some interrelation between them.

The hormones act as determinants of the human make-up, both physical and mental. Personality and character are established by them; alertness, sullenness, fear and anger are but functions of their activity. Giantism and dwarfism, leanness and obesity, restlessness and indolence—all are now attributed to the workings of the factories we have in us.

Some of the hormones produce immediate effect in the excitation and control of specific parts of the body-machinery, while others, though not producing immediate effect, are nevertheless important factor in growth and maintenance.

The glands may be regarded as forming a hierarchy, all the members being intimately related to one another, with their activities nicely balanced. Many also go by pairs, as will be seen in the thyroid, the parathyroid, the two lobes of the pituitary and the two parts of the suprarenal glands.

Some of these endocrine glands are easily found and not very difficult to be understood. Others are minute, hidden in tissues and complex in their activity, as, not only multiple types of secretions are given by one and the same gland, which in some cases are antagonistic to one another, but also the examination of these secretions is masked by lymph and blood. Conclusions, however, are indirectly deduced from symptoms, produced by the partial or complete removal of these glands, by transplantations and by injection into the circulation of substances obtained from the various glands. Tadpoles, rats and guinea-pigs are used before experiments on men are tried. Ascher, working on dogs

and Smith on rats, have successfully demonstrated that complete cessation of growth will set in, if certain glands are removed. Castration is a historical example, which, for bringing certain temperamental effect, has been, by empirical knowledge, brought into practice from ancient days.

Knowledge is not only tracing out various disorders of the body to abnormal functioning of these glands, but is also forging means to cure them, by transplantation in some cases and by ingestion of gland-extract in others, and, even, by feeding in many cases with the desiccated gland-extracts, where trials have proved that the hormone would not be destroyed by the stomach-juice. Organo-therapy is a new method of treatment where extracts of various organs are used. A few of these glands and their functions may now be described.

The *thyroid gland* forms a pad over the trachea just below the larynx. When swollen it is easily seen, and by its abnormal enlargement goitre is caused. As quite a large volume of blood passes through it, it has great influence on bodily functions and is extremely susceptible to the activities of other glands. The tone and health of the body largely depends on it. It is like the bellows of the body-furnace. If it works properly, the fire of life brightly burns. If it slackens in its duty, all the living processes become dulled. It participates in the control of the basic metabolic state. It is a wonder how it makes all the difference that exists between cleverness and idiocy and between beauty and ugliness.

The overactivity of this gland is also bad, as it results in various diseases, one of which is exophthalmic goitre, with its manifestations of overtone, giving tremors and quick pulse. Like a furnace again, overactivity brings on restlessness, rapid pulse and excessive combustion of the cells of the body, resulting in rapid loss of weight.

If this gland in the adult is atrophied or if it fails to work properly, myxoedema occurs, whilst if it fails so or is absent in children, cretinism is brought about. The manifestations in the former are thickness of the skin, obesity, loss of hair, slowness of speech, depression and general loss of mental activity, while those in the latter are dwarfism, deficient sexual development and idiocy. Children with atrophied glands are backward, they need much sleep and do not learn easily.

The thyroid gland has both a functional and developmental activity. A tadpole will not metamorphose into a frog, if its thyroid

gland is removed. If, however, it is fed with this gland, it becomes a minute frog far before the usual time.

It is also responsive to sudden demands and emotional disturbances. It is thus a helper of the adrenal gland. One of the substances produced by this gland is thyroxine, which is an iodine compound and has been synthesised, and on which its characteristic effects on metabolism depend. We have only $\frac{1}{5}$ grain of this substance in our bodies and in the whole year we use only $3\frac{1}{2}$ grains. This shows how powerful these hormones are. A dose of one milligram produces definite effects on the oxygen consumption at rest. It is replacing the gland extract in curing myxoedema and also of cretinism in children.

The *parathyroid glands* consist of four small tissue pieces embedded in the thyroid body and on the posterior surface of it. They are in no way connected to the thyroid glands and in lower animals they are at a distance from them. Collip in 1925 discovered the internal secretion of the parathyroid glands.

If these glands are removed, violent spasms of the muscles, tetany and convulsions occur. Symptoms, chiefly of nervous origin, are produced.

The parathyroids have a controlling effect on the calcium and the phosphorus metabolism and also on the alkali of the blood. A defect in calcium regulation affects the clotting of the blood. Rickets and osteomalacia are associated with deficiency of the calcium content of blood, and thus this hormone has some relation with the vitamin D. Injection of its extract increases this calcium content and relieves spasms and tetany.

The *adrenal* or the *supra-renal glands* are like small caps over the kidneys. They are also lavishly supplied with blood and thus their influence is also great. The inner medullary portion is closely connected with the sympathetic nerves and is thus essential to life. The matter of the outer cortex has resemblance to vitamin D, lecithin and cholesterol.

The enlargement of the outer cortex brings on in boys precocious development of masculine power. Girls get masculine features, both in body and thought, and become fat, coarse-skinned and hairy. The adult woman feels herself turning into a man.

Deficiency of the cortical secretion is said to give rise to Addison's disease which is often fatal. In it, low blood-pressure, prostration, vomiting and increase of body-pigments occur. There is, however, difference of opinion as to the cause of this disease.

An extract of these glands was found by Oliver and Schafer in 1895, to contain a substance which when injected brought a rise of the pressure in arterial blood. This substance has been traced as produced by the inner medullary portion and is called adrenalin. The substance has since been isolated and synthesised.

When the gland substance or when adrenalin is injected, it at once brings on a rise of blood-pressure due to constriction that it produces in the blood-vessels. 0.0025 mg. of it per kilogram of body-weight produces a definite rise. Owing to its power of producing contraction, it is much used for stopping bleeding and checking haemorrhage in surgery. Contraction of the uterus can also be brought about by it. It is used with cocaine for painless and bloodless extraction of teeth. It is a powerful stimulant.

Canon has shown that in states of excessive emotion much adrenalin is secreted. The outward manifestations of fear and anger are due to the working of it. When our hairs stand up or when a cat or dog bristles, this is due to the contraction of the small muscles at the root of the hairs, brought about by the contracting action of adrenalin. The same adrenalin, going with the blood to the liver, stimulates it to produce sugar, which is a muscle-food and which brings, at once, a vigour to it. Adrenalin is thus an essential hormone for a fighting animal. By it, the animal's appearance is touched up to make it look formidable. By it also, the blood clots readily and undue wastage of blood is prevented in the case of a wound. It acts like a stopcock, shutting off the blood supply to parts not concerned, and turning it where it will be needed.

The *thymus* is another gland, about 2 inches long, situated in the chest, immediately beneath the breast-bone. It gets its full development at about the second year of life and then from the time of puberty, it decreases in size and gradually disappears. It has antitoxic influence and acts as a check on precocious development. If it is removed, calcium deficiency occurs and the bones would not grow.

The *pineal gland* may be regarded as vestige of the old-time third eye of the brain and is situated at the base of it. It has lost its old functions but in its new rôle, it has obtained some control on growth. It is a restrainer of the action of the gonad glands.

The *pituitary gland* is at the base of the brain and over the roof of the nose. It is near the pineal glands and is composed roughly of two parts or lobes, one derived from the tissues of the nose and throat and the other from those of the brain, one influencing the pressure of the blood and the other, growth and bony tissues. It is a growth and maintenance gland. In health, it helps in the better development of the muscle. The pituitary was discovered quite a long time ago, but it was only in 1886 that Pierre Marie traced the disease acromegaly to it.

By removing the posterior lobe, the heart rate falls, basal metabolism (the energy used when resting) also falls. The removal of the anterior lobe is often fatal. By removing the pituitary in the tadpole, Smith found that the thyroid gland would not grow; the tadpole would not change into frog. But by removing thyroid, pituitary continued to grow.

As in many other glands, more than one hormone has been found to be produced by it. By colouration with suitable dyes, cells in it producing different glands can be distinguished from one another. It is said that six different types of hormones are produced by this gland.

Overactivity or enlargement of the anterior lobe of this gland in young age, produces a big giant-like structure, a boy becoming 7 or 8 feet tall. If the overactivity takes place in adult life, people get the affliction called acromegaly or enlargement of the extremities, in which the hands and the feet, the jaws and the lips grow abnormally and become deformed. The viscera becomes large, the skin thickens, the beard turns coarse and the man becomes more like a gorilla. Administration of the substance of the anterior lobe to amphibian larvae has been found to hasten growth.

Decreased functioning causes stunting of the general growth and deposition of fat. The patient becomes sometimes knock-kneed.

Administration of the extract of the posterior lobe brings on quicker pulse. This extract has been found of much use in labour-pains and uterine contraction is produced with the active principle even at a dilution of one in hundred million parts.

Like adrenalin this also has a powerful press or action, causing muscles to contract. A rapid outpouring of milk from mammary glands, as if by squeezing, is brought about by it.

An extract of the posterior lobe has been found to check abnormal flow of urine in diabetes insipidus. It controls carbohydrate metabolism and can check both the rise and the lowering of blood sugar, which injudicious use of adrenalin and insulin may bring.

As examples of glands, which give both types of secretion, the *pancreas* and the *gonads* may be named. The external secretion of the pancreas is carried by a duct to the intestines, where it acts as a digestive juice, and the internal secretion discovered and isolated by Banting and Best and known as insulin goes direct to the blood stream and enables it to keep its sugar down. Insufficiency of this secretion makes the individual unable to deal with his sugars and this results in diabetes. The discovery of insulin is one of the greatest ever made and has been a blessing to mankind.

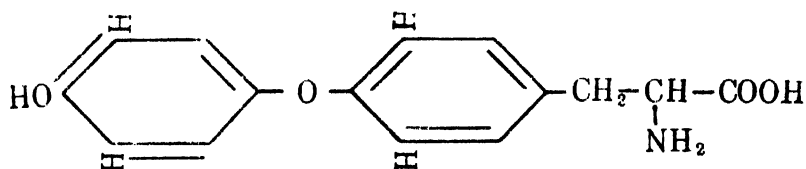
As characteristics of the contribution of these glands to the human make-up, the following facts have been found. The adrenal personality has thick coarse hair, prominent over the chest, abdomen and back, which has a tendency to kink and the color of which is often abnormal. Such persons have also well-marked canine teeth, freckles and moles.

The pituitary personality is virile, if the gland in the man has plenty of space in the brain to develop. Such persons have tall frames; the head is rather flat at the side, the face is oval, eyes are prominent and with thick eyebrows, nose is broadish, cheek-bones and joints are well-developed and the teeth are large and spaced. The arms and legs are heavy. They have good brains and have mastery over lower instincts.

The thyroid personality has lean body, clean-cut features, thick hairs, often curly, and large, frank eyes. They have much emotivity and show tendency to explosiveness. They possess inexhaustible energy, are always found working and often suffer from insomnia.

Few such remarkable examples of the application of chemistry to the study of biological problems could be given as the elucidation of the constitution of adrenalin and its synthesis by Takamine, and the isolation of thyroxine by Kendall and the elucidation of its constitution and its synthesis by Harrington and Barger in 1927.

Baumann in 1895 discovered Iodine in the thyroid gland, and Kendall in 1914 got two iodine compounds and subsequently in 1919 isolated thyroxine, the synthesis of which was accomplished by Barger and Harrington in 1927. Thyroxine has the formula $C_{15}H_{11}O_4NI_4$ which has been found to be represented as



Adrenalin was isolated by Takamine in 1901. It has since been synthesised and has the formula $(OH)_2C_6H_3 \cdot CHOH \cdot CH_2NH_2 \cdot CH_3$.

The hormones of the ovary, lutea corpora and certain other glands have also been chemically investigated, their molecular formulae have been found and the constitution of some of them have been elucidated. Much work on these substances is going on. The investigations embrace every branch of endocrinology and knowledge is rapidly accumulating on the anatomical structure of these glands, on their physiological functions, on the pharmacological uses of their extracts, on the production of desired effects on mind and body with them, on the preparation of active principles and the chemistry of the compounds in them, on the elucidation of the formulae of these compounds, and lastly on their synthesis. It is a rapidly growing branch of science, which promises to explain much of what we regard as mystery in life. The glands may therefore be fitly called as factories which control our make-up and our activities and thus our very lives.

THE NEWSPAPER PRESS UNDER THE EAST INDIA COMPANY

By MR. O. P. BHATNAGAR, M.A.

I

Newspapers occupy a very important place in every country and so they do in our country, though they are not such effective vehicles of public opinion in India as they are in the West. The newspaper

had grown powerful in the European countries as far back as the early 19th century, for Napoleon used to say, "Four hostile newspapers are more to be feared than a hundred thousand bayonets." It would be interesting to trace the origin and growth of such a fearful weapon in India, but before doing so it will not be out of place to sketch briefly its origin in the world.

Italy has been said to be the birthplace of newspapers. *Acta Diurna* which were a kind of daily reports of public occurrences and which have been referred to by Seneca, may be said to be the earliest kind of newspapers. These reports were authoritative as they were issued by the Government of Rome. But they ceased to exist after the death of Julius Cæsar. According to Chalmers, the first modern sheet of newspapers appeared in or about the year 1536. It was a manuscript and aimed at acquainting the Venetians of the political events of the times and used to come out once a month. The first English newspaper appeared on the 23rd of May, 1622, under the title of *The Weekly News*.

The early newspapers were a "miserable sheet of flimsy paper, describing some fabulous event, or a doubtful story, or now a mass of slavish panegyric, now of violent and indiscriminating abuse, issued stealthily, read under breath, and circulated from hand to hand unseen."

In India it was a different story. Neither was their get-up so miserable nor had they to pursue a stealthy course. The newspapers in India made their appearance after more than a hundred and fifty years and the people's outlook by that time had undergone a marked change.

Towards the close of the 18th century the East India Company had grown into a strong political power. For purposes of administration and fresh commercial enterprises a large number of Englishmen began to come over to India. The three Presidency towns, *viz.*, Calcutta, Bombay and Madras, began to have a growing English population. This new element was bound to create changes of far-reaching consequences. New ideas and institutions were grafted on the Indian soil. Newspaper press was one of such institutions. It owes its origin to individual enterprise and not to the Company's initiative.

In 1768 one Mr. Bolts tried to establish a printing press but before his plans could materialise he was ordered by the council at Fort William to quit the Indian shores. Later on a press was established by one

Mr. J. A. Hickey who had come across a treatise on printing, while he was undergoing imprisonment in Calcutta. He had been convicted for non-payment of debts. He repudiated the charge against him; but he was so wild by temperament that no counsel liked to take up his case. At last a friend of his, his namesake and author of "Memoirs of William Hickey," arranged for his defence. While the counsel was pleading, Hickey jumped up like a maniac from his seat, shouted and swore that the lawyer knew nothing and that he would argue himself. Such a hysteric outburst caused great annoyance to the counsel and he refused to proceed further. On being appealed again he conducted the case and got his client released.

After his release Hickey set up a printing press at Calcutta and started the first Indian paper *The Bengal Gazette* in the year 1780. Only two copies of this paper are extant now, one in the Victoria Memorial, Calcutta, and the other in the British Museum Library, London.

This paper became popular from its inception. Newspaper was a novelty and as such was read with great interest. Satirical anecdotes and the nicknames given to various individuals residing in Calcutta gave great delight to the readers. One Mr. Tiretta, a resident of Calcutta, was attacked on account of his foppish habits. In those days when the number of Englishmen used to be limited, everybody used to the balls held at the Government House. Mr. Tiretta never failed to turn up on such occasions. Even if it was June and the night stuffy he used to appear in a suit of velvet. This gentleman had a good figure but unfortunately possessed an enormously big nose. So the paper commented, "Nosey Jargon danced his annual minnuets seasonably dressed in a full suit of crimson velvet." Thenceforward Tiretta began to be called Nosey Jargon.

The paper began to indulge too much in vulgar lampoon and slandered people right and left. The editor was bold enough to cast flings on Warren Hastings, who was then the Governor-General. The Government thought it proper to curb the growing evil, and issued an order forbidding the circulation of the paper through the Government Post Office. In spite of this the paper was not affected as the owners of the press resorted to the method of circulating the paper in the neighbourhood of Calcutta through peons. Hickey was at last arrested in con-

nection with a suit and was ordered to leave India. Thus the paper was strangled in the regime of Warren Hastings. Thus ended ignominiously. Though the paper was thus suppressed yet no censorship had been introduced. Its feeble birth and languid infancy did not call for any restraint.

Suppression of the *Bengal Gazette* did not discourage further attempts. During the years 1791 and 1857 a large number of English newspapers came into existence. Amongst the papers that were in circulation during the above period in the Bengal Presidency, the important newspapers were the *Calcutta Journal*, *Bengal Harkaru*, the *John Bull*, *Calcutta Courier*, *The Englishman*, the *Reformer* and the *Friend of India* which was edited by the Serampore Missionaries. These papers were edited and owned by private persons. The Government of Bengal had her own medium also, viz., the *Government Gazette*. Among the notable papers of the two sister presidencies of Bombay and Madras, mention may be made of *Bombay Times*, *Bombay Courier* and *Bombay Times* and *Madras Gazette*.

The copies of the old newspapers are preserved in the Imperial Library at Calcutta and provide interesting reading material. Very few people could afford to subscribe an English newspaper. Annual subscription of a paper like *John Bull*, which used to come out daily was sixty-four rupees per annum and rupees eight per month. The reading material did not cover more than four pages and mostly consisted of news round about Calcutta. Occasionally comments on the administration of East India Company and extracts borrowed from English periodicals also used to appear. These papers from England were regularly received by those who could afford to get them.

In the early part of the 19th century the newspapers indulged greatly in personal invectives and abuses. One editor attacked the other. *The Calcutta Journal* which was the most popular newspaper at that time invited the trouble by analysing the merits and demerits of the current newspapers and tried to establish its own superiority. The editors of the other newspapers started a malignant propaganda against Mr. J. S. Buckingham, the editor of the *Calcutta Journal*. He was accused of having four wives and it was reported in one of the papers that one of his four wives had arrived in Bombay. The Rev. Bryce who was the editor of *Asiatic Mirror* attacked Buckingham fiercely. In the

year 1819 the *Calcutta Journal* reported the proceedings of a meeting of the Anglican Church held at Calcutta and also mentioned the name of one Darwell, a clerk of the Company. The unfavourable criticism of the paper caused great annoyance to Darwell. One evening when Buckingham went out for a buggy drive he met Darwell, who asked him if he was the editor of the Journal. The question was followed by a few cuts with a lash. Buckingham retaliated by using his buggy whip. On another occasion Buckingham criticised in his paper the acceptance of three offices by one Dr. Jameson. The holder of the offices felt offended and challenged the Editor to a duel. In those days duels were in vogue. Refusal to fight would have implied cowardice. The two would have met but the intermediaries got the matter settled.

Besides such attacks and counter-attacks, the newspapers used to be full of advertisements. The advertisements were at the rate of four annas per line and notified the holding of auctions and the establishment of chop-houses where refreshments of all kinds could be had. Arrival of new consignment of books was advertised. Books of the type of Lord Byron's Works or Confessions of Gamester or Confessions of a Bachelor were very popular in the English society. Theatrical news and notices of horse-races figured very prominently. Lotteries were held throughout the year and offered great excitement. Its notices were a regular feature. Besides these, other subjects which found place in the advertisement columns were masked balls and matrimonial wants. These masked balls were very popular with the young, leading very often to matrimonial alliances. In advertisements for brides it was emphasised that the prospective wife must be free from liver complaints.

In one of the English newspapers edited by the Indians, *The Reformer*, we come across a funny incident. The Chowringhee Theatre was a very popular place of entertainment in Calcutta in the early 18th century. The hall was divided into two halves. One side was reserved for the English and the other half was meant for the Indians. Only a handful of respectable Indians went to the theatre as very few understood English properly. One night it was found that a menial servant in the employ of an English Civilian was occupying a seat in the Indian wing. The master had given his ticket to the servant. Such an action was greatly resented by the Indian society of Calcutta.

It is necessary to bear one point at this stage in the history of newspaper press. The English journalists in India were pursuing the same course as was being followed in England. Press in England had become the victim of party attacks and the editorial columns of the papers of the early 19th-century newspapers are full of Whig and Tory wrangles. Fights between the editors at times crossed the editorial columns and took place in the arenas of law-courts. Very often duels were resorted to. In the year 1821 a duel was fought between the Editors of London and Blackwood magazines. Newspaper writers, whichever side they took, were never safe.

The number of papers coming out in England was certainly much bigger. About the thirties of the 19th century in India did not exceed more than thirty, the United Kingdom had more than two hundred and fifty-four papers in circulation and some of them were having morning and evening editions. In India on account of the heavy rate of subscription and postage very few could afford to subscribe regularly but in England the circulation went up to thousands.

II

Thus the English society gave a new institution to India and its people. Indians did not fail to realise the usefulness of such an organ for ventilating their own views and grievances. In Calcutta by this time there was a growing section of Indians who were getting interested in the study of Western education. In the early twenties the 'Vidyalaya' or the Anglo-Indian College had been established with the efforts of a few prominent English and Indian citizens of Calcutta. Mr. David Hare and Rajah Ram Mohan Roy representing the two sections. East India Company was also getting interested in the Education of India. The clause providing for a sum of a lac of rupees annually for the Education of Indians incorporated in the Charter Act of 1813 had been kept in abeyance for a long time. In view of the fact that missionaries had already begun establishing schools and seminaries for the teaching of Indians and that the Company itself on account of its growing dominions was anxious to secure the services of educated Indians, longer delay on the part of the Government in initiating a definite policy of education could not have been avoided. The majority of English officers and the advanced section of Indians was

also agitating for the making of English the court language which did ultimately become in 1835. It was but natural that the Indians, when such changes were occurring and facilitating studies, should have been attracted towards journalism.

The first vernacular paper which came out was *Darpan* but it was edited by the Serampore missionaries, and cannot be called truly Indian. The paper began its career on the 23rd May, 1818, and was encouraged to grow by Lord Hastings who was then the Governor-General. He helped the Vernacular Press in its growth and did not yield to the imaginary fears of those who considered a free vernacular press a danger.

But the pioneer in the field of vernacular journalism was the great Rajah Ram Mohan Roy. He proved to be the greatest Indian of his times and can truly be called the father of Indian nationalism.

In the year 1821, in the *Calcutta Journal* appeared the prospectus of the Bengali weekly newspaper *Sambad Kaumudi*. Miss S. D. Collet, in her biography of the Rajah, says it was 'a newspaper conducted exclusively by natives in the native language.' We may regard it, therefore, as the parent and Rajah Ram Mohan Roy as the founder of the Vernacular newspaper in India. Along with this several other Bengali newspapers came into existence. Articles of social, literary and political importance began to appear in them. In one of the numbers of *Sambad Kaumudi* appeared an appeal to Calcutta magistrates. They were requested to resort to vigorous measures for saving the Hindu inhabitants of Calcutta from the serious grievance against Christian gentlemen driving their buggies furiously through the crowds of people crowded on the streets, cutting and lashing them with whips, without distinction of age or sex.

Rajah Ram Mohan Roy started a weekly newspaper in Persian in the year 1822 and soon afterwards another Brahmanical magazine. The Rajah led the unorthodox and enlightened school and through these organs attacked the various social evils existing in the Hindu society. Sati was then prevalent in Bengal and its continuance was zealously opposed by the Rajah and his group. But the orthodox school was numerically strong and as a challenge to the unorthodox, they started *Chandrika*, a magazine which upheld all Hindu religious institutions. Subsequently, larger number of papers came into existence. About the

year 1830, as many as sixteen newspapers were being published from Calcutta alone. In the other two Presidencies of Bombay and Madras and the lower Provinces, which are the United Provinces now, journalistic enterprises had been started.

The vernacular newspapers freely discussed all matters, even the English political policy in Europe, and made satirical references to the insolent treatment of the Company's servants to Indians. Such articles aroused the English susceptibilities and could not long have been tolerated. The Tory press in England clamoured for the curbing of the freedom of the press. We now come to the most important phase in the history of the newspapers, *viz.*, the introduction of the censorship.

III

Prior to the year 1791, the Indian press was subject to no other regulation than the English libel law. The Indian press had been on the same footing as the press in England. The Governor-General could withdraw the licence, not for keeping a press in the Company's provinces, but for residence of an Englishman in India. An Englishman coming to India had to secure a licence for residence in the country and could be ordered to go out for any act of misbehaviour. This is how Hickey's Gazette had been suppressed and the editor had to leave the Indian shores.

Between the years 1791-98 two editors were reprimanded for discussing military events and an officer holding a Captain's rank in the army was ordered to go back to England, the fault being the contribution to the papers of an infamatory address to the army. In 1798, one Mr. Maclean was banished for having criticised a judge. Some of the disgruntled Company's servants had begun to give vent to their feeling in the newspapers and it was unpalatable to the higher authorities. The East India Company was growing into a paramount power and a free criticism of the administrative agency could not have been tolerated. The Company feared that such attacks might lower her prestige in the eyes of the Public.

Lord Wellesley formulated strict rules for the regulation of newspapers and appointed a censor to keep watch over them. According to these regulations every editor was compelled to affix his name to the bottom of the newspaper and to deliver his name and address to the

Government. No papers were allowed to be published on Sundays. A violation of these rules or the orders of the censor was to be punished by the withdrawal of licence. These measures reflect the public opinion then powerful in England. The Tories held the majority and they did not like the development of a free press in India. They believed that the British Empire in India was supported on twin pillars—the ignorance of the Indian masses and the security of official acts from any public criticism. In 1801 a plan was prepared by the order of the Bengal Government for the establishment of a Government Press and for the issuing of a Government paper. It was ultimately set up and the paper was known as the *Government Gazette*. This measure was resorted to for counteracting the adverse criticisms of the existing newspapers.

From 1801 and onwards various measures were passed to restrict the freedom of the press. Military orders and war news could not henceforth be published. In 1811, the proprietors of the Presses were required to affix their names to the papers. In 1813 more restrictions were introduced. Proof sheets of all newspapers including supplements were to be submitted to the Chief Secretary for revision. All notices and handbills also were to be submitted in the like manner. The rules that had been passed previously were to be confirmed and to remain in full force.

The man occupying the post of the censor at this time was one Mr. Adams who was the outspoken leader of the Tory opinion in Bengal and a staunch leader of the oligarchy in Calcutta. He asserted emphatically that the press should be strictly controlled. He played an important part in the history of the press censorship.

Presidencies of Bombay and Madras took their cue from Bengal in matters of legislation for the Press as they did in all other matters. Same kind of rigidity was observed towards the Press in the above two presidencies. Editors were very often warned and some of them ordered out of the country.

The Marquis of Hastings who presided over the destinies of the East India Company during the years 1813—1823, abolished the censorship in the year 1818. He felt that a free press was to a certain extent conducive to good government. The great defect from which the Company's Government then suffered was the dilatoriness of the officials.

Stanhope, the author of a pamphlet 'Influence of the British Press in India,' wrote, "To obtain from the Military Secretary an answer to a common note often required (Madras) as much paper and ink and time as the decision of a deep chancery suit." Criticism in the Press would have expedited the proceedings. Besides this, Hastings had one more point in view. The anomaly so far had been that the Indians could exercise their pen freely as they were immune from being expelled from the country as they had not to seek any licence for residence.

Though the Press gained freedom yet it did not mean that all restrictions had been withdrawn. Certain rules were introduced to which the editors had to conform :

- (1) The proceedings of the Court of Directors, the actions of the Governor-General, the members of the Council, the judges were placed above offensive criticism.
- (2) Private scandals and personal remarks were forbidden.
- (3) Susceptibilities of the Indian population were not to be wounded.
- (4) Republication of extracts from foreign periodicals, which might create any disaffection or alarm, was not permitted.

These new regulations had to be registered in the Supreme Court before they could be promulgated.

Such a forward step on the part of Lord Hastings was not appreciated by the Court of Directors and they contemplated the restoration of censorship by annulling the measures of Lord Hastings. A despatch was actually prepared and sent to the Board of Control on the 7th of April, 1820, for communication to the Governor-General. But it was never done so by the latter.

The year in which the censorship was withdrawn a newspaper was started in Calcutta, *viz.*, the *Calcutta Journal*. Its editor was Mr. J. S. Buckingham whose name has already been mentioned. In the history of the press censorship the rôle played by the paper and its editor is memorable.

The removal of press censorship was rejoiced in all the Presidencies, though it continued to exist in the Madras Presidency. Editorial comments congratulating the Governor-General and deprecating the actions of the Madras Government appeared in the *Calcutta Journal*.

The Journal from its very inception began to grow popular. It adopted a bold attitude and allowed sufficient space for the ventilating of individual grievances. Letters criticising the various Government measures appeared in large numbers. One Col. Robinson who adopted the pseudonym of 'Samuel Sobersides' contributed a series of fiery letters, with the result that he was compelled to resign his army commission and to go back to England. The editor had to apologise for the insertion of such matter.

Mr. J. S. Buckingham got into trouble again for having published the news of Mr. Eliot's appointment as the Governor of Madras with a broad black margin round it, as if it was a sign of general mourning. The Government of Madras took exception to it and the Bengal Government asked Buckingham to apologise. The Calcutta Journal lost the sympathy of the Government. Mr. Adams, who as Chief Secretary had exercised the duties of a censor, had now been elevated to the position of a Senior Member, was an inveterate foe of the Journal.

In the year 1823 Lord Hastings laid down the seals of his office and before Lord Amherst, the chosen successor, could arrive, the duties of the Governor-General developed on the shoulders of Mr. Adams by virtue of his being the Senior Member of the Council. Mr. Adams, after the assumption of office, selected one Rev. Dr. Bryce, with whose name we have already been familiar, as the editor of *Asiatic Mirror* and a rival of Mr. Buckingham as the clerk of the Committee for supplying stationery. The appointment was announced in an extraordinary issue of the Government Gazette. It was a rather unusual step and was ironically commented by the editor of the *Calcutta Journal* in the Journal of 8th February, 1823. The article exasperated the acting Governor-General and Mr. Buckingham was deprived of his licence of residence in India on the 12th of February, 1823. He was ordered to leave the Indian shores.

It came like a bolt from the blue, the Journal had a very large number of subscribers and Mr. Buckingham had set up a prosperous business. He had to leave his business in the hands of one of his assistants and bid good-bye to India. The paper lingered on for some time, but another editor was sent away and the Journal was ultimately suppressed. Mr. Buckingham was financially ruined. He appeared to the Privy Council in England for an impartial enquiry into his case.

A Committee was appointed and as a result of the findings compensation was granted to Mr. Buckingham. But his application for going back to India was rejected.

Adam's Government issued further regulations for restricting the freedom of the Press, but before promulgation they too had to seek registration in the Supreme Court. Sir Francis Macnaghten, the sole acting judge at that time, allowed the party feeling aggrieved to send in memorials explaining their case. Foremost among the objectors was Rajah Ram Mohun Roy. Two memorials were submitted. The second one which was generally acknowledged as the work of the Rajah has been called by Miss Collet as "the Arcopagitica of Indian History." Sir Francis decided in favour of the ordinances. The Rajah and his coadjutors to the King in Council (King of England). His appeal was considered as one of the finest pieces of English composition but it produced no effect. Rajah Ram Mohun gave up the editing of *Miratul Akhbar* as a protest against such degrading restrictions. Such a step was resented by the Anglo-Indian (the term then applied to the English in India) society in Calcutta.

Lord Amherst, after assuming the reins of Government, issued a circular prohibiting the servants of the East India Company from having any connection with the Public Press. After the departure of Amherst in 1828, his successor Lord William Bentinck followed the established procedure. The freedom of the press was never seriously molested. The financial measures of Bentinck and particularly the abolition of half 'batta' evoked a strong indignation in the ranks of the army. A series of articles appeared and had ultimately to be stopped by the Government. The Governor-General issued an order to all newspapers prohibiting them from entertaining any more articles on the 'batta' question. The suppression of the *Calcutta Journal* had served as an eye-opener to the editors and no more articles on the subject appeared.

Bentinck was succeeded by Sir Charles Metcalfe in the year 1835. His name is memorable in the history of the freedom of the press. He abolished the press censorship altogether. The originator of this idea was Lord Macaulay who had come over to India as the first Law Member of the Governor-General's Council, and Sir Charles Metcalfe translated the idea into practice. A magnificent hall was

built in Calcutta to commemorate this event and was named the Metcalfe Hall.

The Court of Directors looked at this step with disfavour. Some of the members of the Council of the Governor-General entertained grave suspicions. The opinion in the House of Commons in England too was averse to such a measure. In the year 1811, a heated debate had taken place in the House in favour of the freedom of Press in India, but now the times had changed. The British were growing conscious of their imperial interests and the incompatibility of a free press in a subject country. A free press was considered the natural concomitant of free institutions.

The press continued to be unmuzzled up to the year 1857. In this historic year threatening clouds began to gather on the Indian horizon. The armies revolted and the Government scenting the danger immediately took steps to control the Press.

The Act XV of the year 1857 prohibited the keeping or using of a printing press without licence from the Government. The Government exercised discretionary powers in granting licence. The Government had the right to revoke the licence at any time and the circulation of newspapers, books, or any kind of inflammatory material could also be prohibited. The act applied to the English and Vernacular press alike. We have to bear in mind that up till now no distinction had been made between the Vernacular and English Press. The Act of 1835 liberating the press did so both the presses and when the freedom of the press was suspended it applied to the two presses equally.

The history of the press remained simple enough in its infancy. It began to be chequered in its adolescence. With that we are not concerned here.

GUARDIANS

I lay beneath a tree,
 The day had been vain;
 I looked at the moon—
 The moon gazed at me.
 I closed my eyes, for I was afraid.
 But God was gazing at me
 I trembled,
 And slept.

—A.G.

A FANTASY

By MR. KAMTA NATH SINHA, B.A.

‘ Was it a vision or a waking dream? ’

—*Keats.*

An ache, a pang, a twinge of pain, a vain regret, a craving for the unattained, a yearning that lingers in the heart, a longing for what is not . . . memories, cruel and yet so sweet. No more! Ah, would that I could drown my being in Lethe and nonentity. But that is not to be. Nothing can erase from the tablet of my memory the haunting picture of the woman—ah, the pity of it!—the woman destiny denies me. Was it not Paul Bourget who said that there is a certain mental and physical state wherein everything in us is abolished, in our mind, in our heart and in our senses, ambition, duty, past, future, habits, necessities—at the mere thought of a certain being?

It was a chill winter evening and I was indoors. I had been reading for some time, when I became conscious of the fact that for the last half an hour I had held the book open at the same page. I would read one line and then another, but the lines conveyed no

meaning to me, for between them I seemed to see staring at me with a curiously fixed intensity those fathomless eyes: "eyes charged with dreams that seemed ready to awaken, at the voice of love, to the richest and most passionate life," limpid pools that were appealing, beckoning, pleading—soft and velvety, misty and moist . . . and yet so cruel, hard, almost treacherous. I thought they had a message for me—those glistening eyes with tears: those tear-dimmed eyelids. All else seemed dark:

"And thine eyes amid the gloom
Shine like jewels in a shroud."

Would that I could divine the meaning of those tears—tears from a woman's eye: 'the eye of woman, this enigma, this sphinx, this dumb speaker . . . ' They madden me; they baffle me—

'. . . those drooping eyes that seek
(Concealment of the thoughts they speak.)

and there were the coral lips inviting me to madness. What were they saying?

'Kiss me so long but as a kiss may live.'

For a kiss lasts but one brief, feverish moment of delirious ecstasy! And then there is sorrow and pain and the futility of passionate desire:

'Thus grief still treads upon the heels of pleasure.'

But I could scarce hear the voice for there was just a scented whisper, and yet it told me much—of Love and Life and Immortality. I thought I kissed the lips:

'And I shall drink music from her sweet lips
And she shall drink madness from mine.'

But my kisses were

". . . by hopeless fancy feign'd
On lips that are for others . . ."

For others! O, cruel, relentless Fate, why this agonising thought to torment and harrow my soul in mute despair? Though plunged in despair, I still believed a time would come when

“Humble thoughts will strive
 Faded hopes revive
 Broken blossoms thrive
”

and that kiss of mine

‘. . . . shall all else survive
 With food of saddest memory kept alive.’

I saw her breathe :

“And thy breath that softer music speaks
 Than summer winds awooing flowers.”

And the eyebrows . . . cruel scimitars . . . why wound a heart already throbbing with pain? I seemed to have gone into a trance, for now I thought I felt brushing against my face the silken tresses fanning hers, and they seemed to hold my soul within their raven snare.

What vision was this? I only know that it had conquered my heart; it had ravished my soul . . . I see thee beckon, O freak of fancy, O delusive mirage conjured up before the mind's eye—so painfully sweet, so sweetly painful . . . Verily, Anatole France was right: *Beauty is painful*.

But why do I always see you, everywhere, O mocking vision, shattering my sweetest hopes? . . . What was it that Catulle Mendès said?

“Something which may not be explained: a woman ever in one's head, in one's heart, in one's blood, in the movements which one makes, in what one eats and drinks”

The vision loses its brightness. I look down at the book . . . but the printed letters seem covered with a haze . . . Or is it that my eyes are dim with tears?

THE ALMA MATER MUSES OVER HER GOLDEN JUBILEE (A Phantasy)

By MR. SHANTI SWARUP GUPTA, M.A.

Dramatis Personae

Mother A. U.—A strong and buxom middle-aged woman. She is dressed in a grey gown trimmed with green lace. Benignity and smiles suffuse her beaming countenance.

Seraph—A tall and strong spirit of imposing countenance.

Cherub—A thin, timid and bookish spirit.

Nymphs—Of all shades—slim and fat and middling; white and gold and tan. Dressed in all the colours of the rainbow. They look very bright and very fresh.

Angels—Tall and short; fair and tropical; handsome. Dresser in smart ‘Parfit’ suits of all varieties. Most of them are clean-shaven. There are a few ‘Robert-Donat-Mustachios’ to be seen. One or two whiskers are also visible.

Spirits—Such as ‘The Spirit of the Union,’ ‘The Spirit of the Grounds’ and ‘The Spirit of the Roads.’

SCENE 1

[The time is 2 a.m. on a cold December morning. In the light of Learning, A. U. is seen reclining on a soft velvet sofa of blue and pink. Her head rests on a silver cushion on which is embroidered in letters of flaming gold “QUOT RAMI TOT ARBORES.” There is no sleep in her eyes. She is murmuring to herself.]

Sleep. . . O, my restless spirit! sleep. For tomorrow I shall have to be very busy. Don’t you know that this is the eve of my golden Jubilee?

1937 . . . 1887 . . . 50 years. Well! It is a long time. And still I am so young. I feel surprised. How these mortals do age! But ‘age cannot wither me.’ I am fifty yet I pulsate with desires; I throb with the vitality of life. And why should I not? My sisters on the other side of the globe are centuries-old and yet they have more life, more activity, much more activity than I have. I am only a child. A lifetime lies before me yet.

I am ambitious . . . yes, and I am vain also. But I have reason to be ambitious and vain. I am healthy and strong. I really feel sorry for sister Pat . . . Poor thing, how she has neglected her health. I have a magnificent and imposing residence. And my children are the brightest in the whole family. (She stops speaking and listens. A babble of voices is heard outside the room.) How restless my children are! But discontent is a healthy sign. They will never stagnate.

[She sits up on her couch. Her thoughts have driven sleep away. She smooths the folds in her dress and lights a cigarette—Don't forget, good readers, that it is the year of grace 1937 and even Mother A. U. must move with the time,—powders her nose and smiles as she looks at herself in the mirror.]

I have been successful. Wherever I look, I find signs of improvement. My abode has grown into an imposing pile of buildings from the miserable bungalow in which I spent my childhood. I have spacious playgrounds and neat lawns—though not as trim as I should like. My children are envied all over the country for their brains. Most of the prizes in public service, every year, come to me. On the playground too, I don't lag behind. I have recently acquired a new Sports Pavilion, though, of course, for distinguished visitors only. The field of my activities is wide. I have numerous departmental societies. I hold many debates. I have short story competitions. I provide training and I am thinking of making arrangements for aeronautical training also. I provide every facility for physical development through Sports and Games and Boating. And the artistic instinct. I haven't neglected that either. I hold music classes and music conferences and I think I will make arrangements for painting also. A remarkable record altogether. I have reason to feel happy and to be proud of my achievements . . . But, now, let me sleep.

[The lights become dim. Mother A. U. throws away her half-burnt cigarette and drawing up the coverlet sinks into a peaceful slumber.]

[CURTAIN]

SCENE 2

[The dawn breaks. A children's nursery is disclosed. Books, retorts and musical instruments are neatly arranged in separate corners. A crowd of

nymphs, angels and spirits is seen humming with excitement. Some of them are quarrelling. A few are still singing in the bathroom. Mother A. U. enters.]

Mother A. U.—Good morning, children.

Angels, Nymphs, Spirits—Good morning, mother.

Mother A. U.—Well, what is the matter? Why are you shouting and quarrelling?

Voices—Employment . . . Room . . . Grievances.

Mother A. U.—Oh, I see. You have some grievances. Well then, you must queue up. I'll listen to you one by one. I had thought that you were all perfectly happy and contented.

[The children queue up. The seraph and the cherub, go up to Mother A. U.]

Seraph, Cherub—We are not happy in the rooms allotted to us. Each one of us wants the big one adjacent to the Senator's Pavilion.

Mother A. U.—Come now. You must be good boys and stop quarrelling. I will give that room to the Seraph. He is more efficient and has seen more of life. You, my dear Cherub, have been a book-worm all your life. Here, I'll give you this book, "How To Get On In Life?" Read it carefully and I will give you the big room next time.

[The Cherub throws the book aside, but picks it up on second thoughts and walks out in great ill-humour wiping away tears of rage and helplessness. The Seraph goes out of the stage triumphantly. A group of nymphs and a group of angels come next.]

Nymphs—The angels are very bad. They have no manners. They smile at us. They pass remarks on our saris. They put flowers on our seats. They shower epithets upon us. They run behind our chariots. We are sick of them. And you mother, you don't treat the nymphs and the angels alike. Just see what a miserable abode you have allotted to us, while the angels live in charming palaces . . .

Angels—No, mother. They are wrong. They are too vain and too haughty. They refuse even to look at us. They are also unjust. They attend all our shows and when we want to attend their performances, they bang the doors in our face. Now is this nymphlike?

Mother A. U.—(Smiles.) I expected this. It is a new experiment I am trying, putting the two of you together. And I am not surprised at the results. No doubt, you will take time to get used to each other. Yes, I'll have a suitable abode made for the Nymphs. But you should be more considerate to the Angels. And, you, Angels, you must behave yourselves. You have been very naughty and very mischievous, and very . . .

A small Nymph—(Breaks in.) Mummy, don't rebuke the Angels so. They are bad, but not so bad.

[The groups begin to laugh and walk out of the stage. The Spirit of the Union now comes forward.]

The Spirit of the Union—I am the most ill-treated Spirit, mother. Nobody cares for me. They look at me with contempt. They rebuke me and jeer at me. I feel so humiliated. And now I want to give you a flag—a beautiful thing, it has three colours. But they won't let me. What am I to do?

Mother A. U.—I am ashamed of you. You are the worst among my children. You deserve every bit of the calumny that is heaped upon you. You encourage wrangling, and are always fighting over elections. You are idle, and waste your time in foolish pursuits. I brought you up to lead my Nymphs and Angels, but you are only misleading them. I really don't know what to do with you. I am seriously thinking of banishing you one of these days. And as to that flag, you had better think of doing something more useful. Don't drag earthly concerns into the sacred domains of Heaven.

[The Spirit lowers her head and goes sulkily out, and the Spirit of the Grounds, and the Spirit of the Roads now approach together.]

The Spirit of the Grounds—I am badly neglected, mother. My lawns lie uncared-for. The flowers are never planted, and the hedges are allowed to run wild. How I do envy my sister in Oudh!

The Spirit of the Roads—And me too. I am allowed to remain in a most unsatisfactory condition. My tears form pools during the rains, and I throw dust upon my face during summer. But nobody cares.

Mother A. U.—Don't cry, children; I never knew that your condition was so bad. My new Viceroy will see to it that you are restored to your proper dignity.

[They wipe off their tears and are followed by a crowd of Angels.]

Angels—We want employment . . .

Mother A. U.—Oh, stop. For God's sake stop. I am already sick of hearing about your grievances. I dreamed of success; I gloated over my achievements. But what is Reality—Neglect, Quarrels, Idleness, Unemployment. I think I'll go mad. Have I lived in vain? I must think.

[She begins to walk.]

[CURTAIN]

SCENE 3

[The jubilee celebrations are over. The day has come to a close. An unusual stillness pervades the atmosphere after the bustle and excitement of the last few days. Unlit rows of electric bulbs, and broken bits of buntings are all that is left of the recent gaiety. Voices are ringing in the air outside the room. *Mother A. U.* is talking in her sleep.]

Mother A. U.—How shall I ever forget my recent splendour? My children have paid an unforgettable tribute to me. The Convocation and the Degrees . . .

Echo of Voice in the air—Unemployment!

Mother A. U.—The Addresses and the Drama . . .

Echo—The Reality!!

Mother A. U.—The dinners . . .

Echo—Poverty!!!

Mother A. U.—(Turns restlessly in her bed.) May your mother's blessings be upon you ever more, little children. The black night is at an end. The new dawn is a-coming. May you be WISE and HAPPY.

[The stage is flooded with rose and gold.]

[CURTAIN]

AT THE COUNTER

By MR. PRABHATINDU GANGULEE, B.A.

The twentieth of every month is a red-letter day, for anyone, that is, who is in this University, and believes in paying his fees on the very last day possible. Often I have heard of students who have grumbled about the uncontrolled mass which assembles there, dying to pay money and for once finding that the man who is to take it is most reluctant. He carries on signing receipts one by one, while the other students wage a minor war to get to the 'window.'

I marvel at the man's patience. He seems like Prometheus in his cool sufferance, and resists the temptations of lucre in a manner of which even Buddha would be proud. There he sits. Crisp notes to the value of hundreds await him. But will he hurry? No, he is steadfast in his meditation and nothing concerns him but the attainment of 'Nirvana.' Here is the devil himself, in the shape of currency notes, offering him the world if he will but worship and hurriedly take the notes; but he answers 'Get thee behind me, Notes.' Often I've wondered how many a religious man—specially those who go about in ashes and sack-cloth; our travelling temples—would react to such a situation. The rishi who cries that if you give him two pice he'll eat a 'luddoo,' give him an anna and he'll have a square meal, and who thus proceeds on an ever-ascending scale—what would he do were he to find himself in such a position? They, I am sure, are ascetics through the force of circumstances. It isn't in human nature to go about parading poverty. For poverty is the most deadly of sins. But mask this condition of life; go about with a loin-cloth; rub ashes over your body; let your hair run wild with knots; raise your arm to imitate the spire of a Gothic church; let your nails grow six inches; shout slogans which on one can understand! have an other-worldly look in your eyes; do all this, and the miserable rich will think you are a higher type of Man who is about to see the Beatific Vision. That is the charm of mysticism; and India being a land of the poor is also a land of mystics. The devil, alas, has never come to them. They have never been asked to renounce the world. To test their sincerity give them a seat at the University counter. Then I am sure most of them will succumb like Goëthe to the Mephistophilian notes. And mysticism will come

crashing to the ground. Every Corsican cannot be a Napoleon. Neither can each individual ever dream to possess qualities like our clerk. I have only mentioned his hatred of filthy lucre, and his heroic patience. I have said how these in itself make him eligible for the post of the arch-mystic. But I can enumerate at least a dozen other qualities. And each will go to prove how the twentieth century is not inimical to the practising of 'nobler' qualities. Far from it. it provides greater opportunities to show man's conquest over himself.

Just as he should lead the ascetics, so should this marvel of a man be awarded the Nobel prize for Peace. Compare his actions and their results with what Kellogg or anyone else has achieved. There always wages a battle royal over the window. It was as if the earth possessed only a very limited amount of land on which a huge population were fighting to settle. Great are the pushes. You sometimes feel as if you'll be squeezed to nothingness as one wave of invasion succeeds another. Transferred to a smaller but no less important field here we find individuals epitomising nations which are bent on conquering each other's territories. I noticed that one rather sly-looking boy, who had just come in, hacked his way through until he was next to me. This reminded me of Japan and its fast progress at the expense of other nations. I was wondering whether I'd have to suffer the fate of China when I heard a dictatorial voice say: "You there, get back. I'll take your fees last. The others came first and they'll be served first." There was no use arguing, and so the lad had to drop back. I breathed again. Imagine the League of Nations accomplishing any such thing! That's just it. He keeps peace and order, threatens to close down if the students won't listen to him; and, as you just saw, wields Justice. The great point about this judge is that he is not blind. He saw that I had come first and therefore was able to pass the order that he did. Does he not teach the world the mistake it had committed in considering Justice blindfolded? Does he not exemplify the humble man who does actions of great value of whom the world takes no note? And here is another lesson which he teaches us. He seems to be a person whose code of life is: Action is thy concern, not its recognition. Experience and not book-learned theories have forced this conclusion upon him. That is why I feel so greatly whatever he seems to stand for. He is not the divine whose knowledge of the

Scriptures is kept fresh and up-to-date by constant repetitions of inspired maxims; he is the silent preacher and on the tablet of his heart Time and the bufftings of years has engraved texts which now form a part of him. And although the world remains ignorant of his greatness; although he is doomed to die in the obscurity of his race; although fame and fortune will be denied him; although no poet laureate will sing his virtues, he is not seized by despair which would force him to relinquish the task he has undertaken. Like Keats, he seems to be one of those very few, who say: I shall do my work irrespective of the fame and glory which may attend it. And thus he carries on while the surging mass of youthful humanity is all around him. People have been known to lose their heads when surrounded by a mob. But not he. You may as well try to detect a wrinkle on the face of the Sphinx when a crowd of babbling Americans surround it. Calmness is the characteristic of his race, steadfastness his special virtue. The mission of his life is ever before him like a guiding star. He must follow it. A born fatalist, and queerly enough also an optimist, he believes that if he does but keep to the path which has been chalked out for him, he shall at last come to the land of satisfaction. In this life, he finds satisfaction in the realization that the ways of man do not deter him from the road which he has been appointed to trudge. And like the Pilgrim he is ever marching. What if this student calls him a slug? What if he hears subdued whispers: I wish the idiot would hurry? These are but temptations. And experience has taught him to shun them. The ordinary individual would have bellowed and belched at hearing such things about himself. But where would this clerk's greatness be, if he took to retorts? He merely lifts his bowed head. And as he does so, I see two heavy eyes which bespeak tomes of wisdom. His silence answers them. And as he bends over the book signing yet another receipt, I stand wondering whether the truth of Milton's line:

‘They also serve who only stand and wait,’

was ever clear to me before this. It needed the meeting of such an individual before the implications of the poet's words stood before me, crystal-clear.

FROM A WAYFARER'S DIARY**(Some University Stars)**By MR. P. D. T.*

‘Do not prettify me, include all the hells and demns.’

—*Walt Whitman.*

‘The aim of biography is the truthful transmission of personality.’

—*Sir Sidney Lee.*

‘Speak of me as I am: nothing extenuate nor set down ought in melice.’

—*Othello (SHAKESPEARE).*

I see them going through the university corridors. I see them teaching in the class rooms. They are seen in the university compound. They are present in social gatherings. Though they are not omnipresent, yet they are almost everywhere. It is not difficult to say a word or two about them.

One cannot help noticing Mr. S. C. Deb in the gallery of the university teachers. He speaks with a scholarly grip, speaks ceaselessly, continuously and incessantly. His lectures bristle with stray references to nearly all the Oriental and Occidental Literatures and authors and it is from this aspect of his teaching that the vitality and charm of his class is derived. He uses the word ‘indeed’ with great relish several times daily in the classroom. A voracious note-writer told me the other day that while revising the notes of Mr. Deb’s class, he found about a hundred words half-spelt, many sentences incomplete and pages after pages without any punctuation. His students in their class notes find things concerning not only English Literature but also delightful references to philosophy, painters, dates of battles, mathematical equations, geographical maps, names of chemicals and a world of other things. A delightful list ‘*indeed*.’ He has reserved the word ‘rather’ to be used outside the class-room and that too with great gusto. I never heard him pronouncing the word ‘bus.’ Perhaps

* The first article in this series appeared in the University Magazine of December, 1936, under the title “Some University Luminaries.”

he is annoyed with it, as the members of the 'Friday Club' dub his car a 'bus.' No one likes his steed being called a mule. Here I leave him and note his colleague Dr. Dustoor, the "Fowler" of the English Department whose perfect accent has a nasal twang. He has a sharp wit which makes him a perilous foe. His motor cycle (I am told now that a car is soon to usurp its place) and particularly when his wife sits on the pillion provokes attention. It is a very common sight in England, but a rare one in India. And it was not a wonder if he became the cynosure of all eyes that day when he came to see the paintings of Miss Shergil. I have seen more of Mr. S. N. Misra in Sir P. C. Banerji Hostel and less in the university. A scene flashes before my vision and it is of the days when Mr. Misra used to stroll on the hostel lawns in 'malmal' kurta and his peon with a tin of cigarettes behind him. To some students he appeared to be an ex-nawab of Oudh in exile. Mr. S. N. Misra is an absorbing conversationalist and he is noted for his perpetual smiles. Students are not pleased when they see him during examination days, because his 'magnum opus'—"Misra Prose Selection" is a hard nut to crack. Would it be very improper if I make a mention of 'Syt' Bhagwat Dayal who is only a teacher as long as he is in the classroom, and out of it always more of a lieutenant and less of teacher? His ever-burning and never-ending cigar seems to have some magic about it. Alas! my desire to see him without the halo of cigar fumes remains unfulfilled. It staggers one to think what he would look like if he were caught smoking a 'Biri'. One more craving which is still unsatisfied is to see Mr. Simlai without a pipe. In the realm of smoking Mr. Simlai is a rival of 'Sriman' Bhagwat Dayal and in giving romantic references in the classroom he is a disciple of Mahashai Raghupati Sahai. 'Comrade' Sahai is an outstanding personality of the English Department. He is a remarkable athlete in the romantic field of aesthetics and the Urdu 'Gazal'. And here is that tall and handsome figure—Mr. Bhawani Shanker, Master of Ceremonies of the 'Friday Club.' His feeble voice is not easily audible to the back-benchers in the classroom. His courtesy, occasionally overelaborate courtesy, never degenerates into frigid formality. (At times one misses Mr. Ahmad Ali—thin, slim, his rugged, romantic hair attracting attention. He is a progressive thinker and writer but to

strangers he always appears to be a retired socialist or a socialist on furlough.)

The two resident-tutors of Holland Hall—Mr. R. N. Deb and Mr. E. L. Chowlin—come next. The question of their marriages provides an interesting theme for much good-natured scandal to the Hollanders, because there are whispers in the air that they will soon be bound by the sacred ties of matrimony (the whispers regarding the former of the two have become a regular din). Mr. Deb once said that his nose had spoilt the beauty of his face. I can assure him that he is tolerably handsome even now. There is a noble mournfulness in his face which, always seems to be worried 'at this sorry scheme of things entire' which we call life. He is himself a painter of no mean merit, but it is in the world of art criticism that he has won his spurs. Four years back Mr. Deb was a violent D. H. Lawrence 'fan' but to-day he is a determined detractor of that great if perverted genius. With regard to Shakespeare his attitude is amusingly unconventional. He is that rarest of rare persons—an upholder of the fantastically ingenious 'Bacon theory.' In the morning he is imbued with liberal humanitarianism, in the day with the Gandhian idealism, in the evening with Communistic extremism and in the night with terroristic ideology—to use that fashionable if tiresome word. His colleague Mr. E. L. Chowlin is a man of catholic tastes and varied interests. He is a voracious reader, a bibliophile in the best and the highest sense of the word, and a writer of no ordinary merit. He has a 'corn' in his foot which gives him the advantage of a high-heeled shoe and imparts an air of idiosyncratic peculiarity to his walk. It appears as if he were walking on hot potatoes.

And now to the Economics Department, Mr. Saraswati Prasad and his mosquitoes. In his damp room one has to exert more in fighting with mosquitoes and less in attending to the class work. But he feels quite easy with them, as if they have been tamed by him. It is interesting to hear him pronouncing 'Gov-e-r-n-me-n-t' and the 'Hiltonian Committee.' The latter has a martial ring about it when uttered. His delightful references to Ghurey Lal and other local celebrities are a source of delectation to his students. But what about our Parsee teacher, Mr. J. K. Mehta, whose lecturing in the classroom is not real lecturing but loud thinking? He in the classroom

thinks scientifically, analytically and convinces his students. (And how interestingly and amusingly he pronounces these names “पुरुषोत्तम डाव, नरोत्तम डाव, हशमत अली.” He controls the class by his smiles and not by violent threats. Let us now talk about one who is older than Prof. Amaranatha Jha, and around whom is woven a legend that he was extremely handsome in his young age. He is Mr. Karwal. The keen observer in his class is occasionally lost in wondering if he is really older than Prof. Jha and if there are still some traces of beauty in him. He ponders and ponders and the bell rings off.

The Department of Politics is just near the Economics Department and there is Mr. G. S. Chatterji, popularly known among the Politics students, as Mr. ‘Executive and Judiciary.’ He has a startling vocabulary and occasionally there is a volley of eight-syllable words which he hurls at students. On the roof of the Politics Department is Mr. Ilyas Ahmad. He has the dignity of a teacher in the classroom, but after university hours he appears to be a Mecca-returned Maulana. His familiar talks, in mixed Hindustani and English in the seminar class, are a great relief from the indifferent English of some others. And why should not one remember that solitary teacher—Mr. Avadh Behari Lal, kind, polite and modest, who had a resplendently brilliant academic career althrough, but about whom there is always a tragic mystery? I wonder! Why?

ON THE NATURE AND FUNCTION OF POETRY

By MR. ANANDSWARUP GUPTA, B.Sc.

It is not the English alone, “who are a sullen people,” and need diversion; monotony inhabits all countries alike. The world is so much with us, and machines grow so numerous that we are bound to be bored. And, anyhow, it is human nature to resent repetition, particularly in professional life. Office-hours, and factory-hours, and school-hours; the very thought of them gets on our nerves. As if life were not murky enough without them. Diversion is a sore need; but we have countless diversions. A civili-

zation that quickens the pace of life and work, leaving much leisure, can also provide diversions in its own sordid way. We have gambling, dancing and dog-racing, crosswords, cinemas and cheap thrillers, and fights, factions and wars in plenty to divert and amuse us. Diversions, indeed!

But even such gross materialism as ours has been unable to wipe off Poetry. Sir Philip Sidney, Spenser's 'parfit knight' of the sixteenth century did, indeed, find occasion to pen "An Apologie for Poetrie" in 1580-01; and Shelley had to write "A Defence of Poetry" (published, 1840): but one wonders if Poetry will ever really need the help of learned 'counsel' to help it stay in the world by pleading its cause. In fact, Poetry is so vitally a part of human nature that Man can never be separated from Poetry. I am sure there is no literate man alive who does not possess a volume of verse in his home. Poets, it has been said, and rightly, only put into words what everyone feels, but is unable to express. To Poets, the joys of the world are joys, and

"The miseries of the world are misery
And will not let them rest."

How can we do without them?

It is this fact of Poetry being an expression of feelings, that makes it so dear to us. Poetry is "the history and the science of feelings." Poetry, as Dr. Moore-Smith says, is "not concerned with facts of nature, but with feelings, with facts of the soul. We do not demand of Poetry, as we demand of Science, that it should be true, but we insist that it should be sincere—so sincere that it represents not only what the poet believes, but what he deeply feels." For the artist—

" 'Beauty is truth, truth beauty,'—that is all
Ye know on earth, and all ye need to know."

And Poetry isn't a mere *expression* of sincere feelings. Byron said that "Poetry is the lava of the imagination, whose eruption prevents an earthquake." Such Poetry must reverberate with humanism: and, it cannot but appeal deeply even to the most prosaic of men. In fact, a distinguished critic has said that the appeal of Poetry, particularly lyric Poetry, is a test of culture. We must needs call him uncultured, on whom Poetry has no effect. But, 'breathes there the man, with soul so dead?'

Poetry is "the breath and finer spirit of all knowledge," and not merely "the best words in the best order." It is superior to History, as Aristotle declared, for it possesses a higher truth and a higher seriousness. It is "the impassioned expression which is the countenance of all Science." What does Poetry not embrace? It spreads its net very wide.

The poet's eye in a fine frenzy rolling,

Doth glance from heaven to earth, from earth to heaven,

And as imagination bodies forth

The forms of things unknown, the poet's pen

Turns them to shapes, and gives to airy nothing

A local habitation and a name."

Poets have concern with the profoundest things of life as well as the most frivolous, with the supernatural as well as the most commonplace, with truth as well as with fiction; and their concern is so captivating, they throw that "certain colouring of imagination" so vividly and bewitchingly that they never fail to secure the "willing suspension of disbelief for the moment" which is all they need to make them popular.

Poetry not only amuses and diverts, it consoles, persuades, instructs and exhorts. It not only brightens an hour or two, it "most teaches and moves to virtue." The time spent in the company of a poet, whether in person, or in the more permanent form of his books, is never wasted. As a matter of fact, Dr. Moore Smith, even says that "only that man with read life with truly sympathetic insight, who has lived in the world of poetry and art." According to Sir Philip Sidney "they (the Poets) were the ancient treasurers of the Grecians' divinity . . . the first bringers of all civility, . . . all knowledge, logic, rhetoric, philosophy--natural and moral . . . they are beloved of the God's: . . . ever-praiseworthy Poesie is full of virtue-breeding delightfulness." Poets are not merely "of imagination all compact," they observe watchfully, feel deeply and speak with words born of a divine inspiration. Goethe, who has been declared to be second only to Shakespeare, in the world of Poetry, confessed that he felt an impulse "to transform

into an image, a poem, everything which delighted or troubled him, or otherwise occupied him; and to come to some distinct understanding with himself upon it to set his inward being at rest." Poetry, according to Milton, is in a higher degree than rhetoric, simple, sensuous and passionate. And "a perfect poem like 'Lycidas,' a perfect fiction like 'Esmond' . . . has something of the uses of a religious 'retreat,'" writes Walter Pater.

Poetry not only enables us to be more articulate, to perceive more clearly, and to distinguish more readily between sensitive and sentimental observation than before, it changes the whole configuration of our minds: it harmonises conflicting emotions, it chastens and subdues and calms us in the "weary strife of frail humanity."

Poetry relieves the monotony of our dull, dreary existences: it comes to our aid when we are isolated and downcast, it cheers us and gives us hope, when cheer and hope are most needed. It is the surest of supports and the fastest of friends: in fact, supports may crumble to dust and friends may desert us when things go awry, but Poetry abides. Come to it again and again, as many, no doubt, do, and it wears. It gives hours of escape from the smallness of our surroundings into a wider and fairer world, where our senses are charmed, our emotions stimulated, and our thoughts raised; enabling us "to lift our eyes above the chimneys to the everlasting hills," in short. And it irradiates for us our petty surroundings, with something of "the light that never was on sea or land," when we fall back into our old dull routine.

Wordsworth said that Poetry is "emotion recollected in tranquillity": Poetry, certainly, embodies emotions which bestow tranquillity upon many a disturbed and aching soul. "The two-fold shout" of the cuckoo, bringing "a tale of visionary hours" is more than "thrice welcome." In "vacant" and in "pensive" moods, we can lie on a couch, and let Wordsworth's daffodils

"Flash upon that inward eye
Which is the bliss of solitude,"

and our hearts must brim with pleasure then. "Like a lore-adept," we can sleep "on the poet's lips," while he "feeds on the aerial kisses of shapes that haunt thoughts' wildernesses."

The appeal of painting is strong, and so is the appeal of music, but the appeal of Poetry is strongest of all. Drink the music of the poet's words

“ I chatter over stony ways,
In little sharps and trebles.
I bubble into eddying bays
I babble on the pebbles.”

or be best in admiring the deft strokes of the poet's paintings, which no canvas can excel a match. Hear Shelley's picture of autumn :

“ The warm sun is failing, the bleak wind is wailing
The bare boughs are sighing, the pale flowers are dying
And the year
On the earth her death-bed, in a shroud of leaves dead
Is lying

Could anything be more exquisite, more true to life !

And, besides, poets have that “ vision and faculty divine ” which enables them to unravel earthly mysteries, to “ see into the life of things.”

Even if we do not regard them as “the unacknowledged legislators of the world,” must not we say of them, at least, that

“ These my solace, and my refuge :
These my firmest friends.”

THE UNIVERSITY OF BOOKS

By Prof. DIWAN CHAND SHARMA, M.A.

Some years ago, as General Secretary of the All India Library Conference to be held at Lahore, I called upon Sir Mohammad Iqbal to request him to be Chairman of the Reception Committee. Sir Mohammad received me with the most cordial and yet quiet courtesy, and listened to my request with the most becoming attention; but he told me, politely and yet frankly, that he could not agree to my request. When utterly disappointed and dismayed, I was on the point of leaving, he asked me, "Do libraries serve any purpose, and is there any good in reading books at all?" To this searching question of his I was not able to give any satisfactory reply there and then, and so it kept haunting me for days. I wondered why the great poet and philosopher, the eminent scholar and savant, had come to develop such aversion to the study of books. At least that is what I took that question to mean. In no other way could I explain away his startling question. I could not feel that he had treated me the way an examiner treats a candidate for a degree at a Viva examination. He could not have wanted simply to test my knowledge or the extent of my powers of explanation or of persuasion. Surely the question went deeper than that. It implied that distrust of books and mere book learning which not a few great men have shown.

As I pondered over this question many other instances of persons, who were dis-believers in the efficacy of books as a means of wisdom or enlightenment, came to my mind. I thought of Stevenson's Idler. In that delightful essay of his, "An Apology for Idlers," Stevenson has made a very powerful case against the study of books. It is true from books we get many scraps of knowledge, but it is doubtful if all those bits of information are very helpful. Says he, "For my own part, I have attended a good many lectures in my time. I still remember that the spinning of a top is a case of Kinetic Stability. I still remember that Emphyteusis is not a disease, not Stillicide a crime. But though I would not willingly part with such scraps of science, I do not set the same store by them as by certain other odds and ends that I came by in the open street while I was playing truant." From this he argues

that a great deal of book learning is mere lumber. It is not worth even a candle, since it has very little bearing on our life as we want to live it. Again he believes that books take us away from those healthy and wholesome contracts with life which are really serviceable. A book-man is generally in the same predicament as the Lady of Shallot. She could not see life as it were in the raw, but was content with looking merely at the shadows that were reflected in a mirror. A person who is constantly poring over books, savours experience only at second hand. He lives in a world of ghosts, of shadows, of pale reflected images, and not in a world of reality. He reads about what others have done or thought or said, and forgets that he himself is to live as an active, thinking, feeling and articulate person. Thus books shut him off from this great world, the beauty and wonder of which he can realise through his eyes and ears and other sensory channels of communication. A lover of books gets used to a kind of armchair existence. He forgets that eyes and ears, the sense of smell and the sense of touch can also be made use of to increase our knowledge. For him the landscape near Oxford can become real only in the poems of Matthew Arnold or those of Robert Bridges, and the song of the bulbul or that of the cuckoo can have a haunting beauty only in the tuneful melody of Hafiz or the wistful musings of Wordsworth. His sense faints only when he inhales the odour of flowers described in an ode of Keats and he becomes aware of the delectableness of a feast, only when he reads about it in some book of travel or in some gorgeous poem. In other words, he loses his capacity for a first-hand enjoyment of the good things of this world. He becomes impervious to all that varied and manifold experience, which lies around him. These are some of the dangers to which, according to Stevenson, we become liable if we are addicted to the study of books.

But books do not dull merely our powers of observation and keep us back from seeing life as it is. They very often make us blind to the practical side of life and make us extremely academic and pedantic. This aspect of the problem has been very fully, vividly and forcibly dealt with by Thoreau, in his well-known book *Walden*. This American writer, who was thoroughly out of sympathy with the highly sophisticated and mechanised civilization of to-day, preached the gospel of "Back to Nature," and, unlike most preachers, practised what he said. He left his home town with all its modern comforts and luxuries, its sanitary

arrangements and civic and social amenities of life and went to live by the side of a pond. There, secluded from all the distractions of modern life, he pondered upon the very basis of our modern civilization, and came to the conclusion that it was a monstrous lie, a big hoax, an outrageous fraud, in a word, a kind of whited sepulchre. Naturally he examined the basis of all these institutions which human beings have built up for co-operative living and collective enlightenment, and came to feel that all of them were utterly useless. He found even the educational system in America, which has in more ways than one more practical bias than similar systems elsewhere, totally inadequate for imparting any instruction through the medium of books. This bookish education he found to be divorced from the realities of life, and hence futile. In a passage of rare eloquence and power, he expressed his indignation with it. He said, 'How could youths better learn to live than by at once trying the experiment of living? Methinks this would exercise their minds as much as mathematics. If I wished a boy to know something about the arts and sciences, for instances, I would not pursue the common course, which is merely to send him into the neighbourhood of some professor, where anything is professed and practised but the art of life:—to survey the world through a telescope or a microscope, and never with his natural eye; to study chemistry, and not learn how his bread is made, or mechanics, and not learn how it earned, to discover new satellites to Neptune, and not detect the moles in his eyes, or to what vagabond he is a satellite himself, or to be devoured by the monsters that swarm all around him, while contemplating the monsters in a drop of vinegar. Which would have advanced the most at the end of a month,—the boy who had made his own Jackknife from the ore which he had dug and smelted, reading as much as would be necessary for this,—or the boy who had attended the lectures on metallurgy at the Institute in the meanwhile, and had received a Rogers' penknife from his father? Which would be most likely to cut his fingers? . . . To my astonishment I was informed on leaving college that I had studied navigation:—Why, if I had taken one turn down the harbor I should have known more about it. Even the poor student studies and is taught only political economy, while that economy of living which is synonymous with philosophy is not even sincerely professed in our colleges. The consequence is that while

he is reading Adam Smith, Ricardo, and Say, he runs his father in debt irretrievably." I do not think there can be a stronger denunciation of the study of books than this. Books, in fact, defeat their own purpose, according to Thoreau, by making us live in a world of shadows or of unrealities.

The study of books leads to other kinds of dangers also, and to this Hazlitt has given expression in one of his most well-known essays.

The Ignorance of the Learned.' This danger of over-specialisation or of pedantry is one into which many learned men fall. Really speaking, a specialist is a person, who knows more and more of less and less. He becomes narrow in his outlook, limited in his sympathies, and circumscribed in his range of interests. His case is as pitiable as that of a mechanic in a factory, who is entrusted only with the work of preparing the heads of pins. In the first place, the work of preparing pins is not in itself a very edifying job, but even of this pin the mechanic has to do only a very very small part. The result is that the mechanic spends all his life in a work which is not really conducive to full mental satisfaction or harmonious, emotional development. In the same way, a specialist, who studies only a small part of a subject, loses his sense of proportion. He cannot see things in their true perspective; to him the very small thing appears to be something very big. He thus develops the frog-in-the-well type of mentality. More than this, the so-called learned man finds thinking for himself extremely fatiguing. Says Hazlitt, 'Learning is in too many cases but a foil to common sense, a substitute for true knowledge.' This only means that a learned man becomes a slave to words and forgets that he has to master things. He has no eye for nature. Nature puts him out. He gets the impression of things not directly but through other things. His books become a kind of screen imposed between him and the objects of nature, and they cease to be spectacles which can reveal things truly and precisely. The book-worm also becomes accustomed to a kind of reposeful easy-going existence and is unable to take his full share of the changes and chances of life. Life, in fact, bewilders him. Its conflicts, its struggles, its competitiveness, all these have a disconcerting influence on him. He, therefore, likes to retire into his shell at the slightest warning of danger. Above all, he becomes a kind of gramophone and clever at repeating what others have said. The

result is disastrous. Says Hazlitt, 'The faculties of the mind, when not exerted, or when cramped by custom and authority, become listless, torpid, and unfit for the purposes of thought or action.' In other words the bookish man becomes unfit for those healthy muscular exertion and wholesome intellectual activities which constitute for most of us the real joy of life. It is no wonder that some writers, pitying the tragic futility of the life of a learned man, have said that they would rather be wood-cutters who ply their axes all day than book-worms who are incapable of using their limbs, unable to think for themselves and utterly incapacitated to be themselves.' What these writers have bewailed most about such men is that they lead a kind of parasitic existence.

Says Hazlitt, 'It is seeing with the eyes of others, hearing with their ears, and pinning our faith on their understandings. The learned man prides himself in the knowledge of names and dates, not of men or things. He thinks and cares nothing about his next-door neighbours, but he is deeply read in the tribes and castes of the Hindoos and Calmuc Tartars. He can hardly find his way into the next street, though he is acquainted with the exact dimensions of Constantinople and Peking. He does not know whether his oldest acquaintance is a knave or a fool, but he can pronounce a pompous lecture on all the principal characters in history. He cannot tell whether an object is black or white, round or square, and yet he is a professed master of the laws of optics and the rules of perspective. He knows as much of what he talks about as a blind man does of colours. He cannot give a satisfactory answer to the plainest question, nor is he ever in the right in any one of his opinions upon any one matter of fact that really comes before him, and yet he gives himself out for an infallible judge on all these points, of which it is impossible that he or any other person living should know anything but by conjecture. He is expert in all the dead and in most of the living languages, but he can neither speak his own fluently, nor write it correctly.'

This may sound extravagant and even fantastic, but one cannot deny that there is some element of truth in what Hazlitt says. The learned man in the Hazlittian sense begins to love unreality of every kind and always likes what is remote from common human interests. The ordinary give and take of life, its normal decencies, its familiar

round of duties, its everyday courtesies cease to have much interest for him. He thus begins to lead a kind of existence which is far removed from normal human existence.

But the dangers of book-learning have not only been sounded by the essayists; some writers of short stories and novels have also dwelt on them. In his very interesting story, "The Teacher of Literature," Chekhov has drawn a graphic picture of a bore, Ippolit Ippolititch. This gentleman was a teacher of geography. He was so deeply devoted to his subject that he had lost his interest in everything else. One of his fellow teachers falls in love and wants to tell him something about his romantic experience, but he dare not do this for he knows that his friend would not feel interested. 'I wanted to tell you,' says he to Ippolit Ippolititch, 'something romantic concerning myself, but you are geography. If one talks to you of love, you will ask one at once, what is the date of battle of Kalka? Confound you with your battles and your capes in Siberia.' This teacher of geography had narrowed the world down only to two things, to maps and dates. In the daily intercourse of life he was nothing but a fool. He generally remained silent, but if ever he talked he talked about the most dull and common-place thing with an air of authority. When a friend of his goes to him and tells him that it is a lovely day he replies, 'Yes, very fine weather. It's May now, we soon shall have real real summer. And summer's a very different thing from winter. In the winter you have to heat the stoves, but in summer you can keep warm without. In summer you have your window open at night and still are warm, and in winter you are cold even with the double frames in.' Again when another friend goes to him and tells him that he has married, he makes the most prosaic comment, 'Hitherto you have been unmarried and lived alone, and now you are married and no longer single.' From the example of this teacher we find how a life devoted to the exclusive study of geography or any other subject becomes barren and uninteresting.

Anatole France has also aimed the shafts of gentle ridicule and mild irony on those learned men who write long books that make very heavy reading. It is said that when the young prince Zemire sat on the throne of Persia, he invited all the academicians of his kingdom and asked them to compile for him a universal history so that in the

discharge of his royal functions he should profit by the experience of the kings who had gone before him and thus make as few mistakes as possible. The wise men promised to carry out the orders of the prince. Then they left the court and set to work on it. At the end of twenty years they came back with a caravan of twelve camels, each of which carried five hundred volumes. The secretary of the academy went to the prince and told him that the members of the academy had compiled six thousand volumes in which every detail about the history of mankind was recorded, and all kinds of available knowledge were set down precisely and briefly. He further added that the introduction to this great work alone comprised five hundred volumes. The king listened to all that the secretary had to say and said, 'Your labours will be rewarded and your work will lie in the archives of the kingdom, but you should be kind enough to condense this work in such a way so as to enable me to read it in the short time at my disposal.' The wise men again went back and came back after twenty years. Then they returned with only fifteen hundred volumes. 'Here is the abridged version of universal history,' said the secretary, 'and in it we have not omitted anything that is essential.' But the king said that he had no time to go through even fifteen hundred volumes. He was old and had too many things to do. He could not therefore find time for reading all these heavy tomes. He therefore asked them to abridge it still further and do the work as quickly as possible. The wise men again came back after ten years and brought with them only five hundred volumes. But the king again said that he had no time to go through even five hundred volumes. They should therefore abridge the books still further. Then the wise men again went away. After five years the secretary came again with only one volume. But when he reached the court he was told that the king was on his death-bed. Still the secretary insisted on being taken to the king so that he might request him to have his last look at the one volume of the history of mankind. This was done and the volume shown to the king. He then said with his feeble old voice, 'I am sorry to die without knowing anything about mankind.' But the learned man comforted him by saying that he could sum up the history of mankind in three words. 'Do so,' said the king, 'as quickly as you can.' At this replied the secretary, that the words 'they were born, they suffered and they died' sum up

the history of mankind. After listening to these words it is said that the king as well as the secretary died. This story only shows how wasteful is the work of writing books and how tiresome is the study thereof. One can get essential wisdom without reading much, and it is essential wisdom that matters more than bits of knowledge, scraps of learning and details of events.

I have so far been acting like a devil's advocate dwelling upon the dangers and disadvantages of book learning. But this was necessary to do because I wanted that a reader of books should be aware of those pitfalls into which some book lovers are apt to fall. The preceding pages have therefore been written not to warn off travellers on the road to Book Land, but to inform them about the dangers that beset their path. Still no one can deny that the world owes a great deal to books in a general as well as a personal way. That books have been a living influence in the life of many is as clear as anything, though a countless number of men have had that gift of expression to assess their debt to them which Stevenson and others had. In one of his most penetrating essays Stevenson has dwelt upon the books that influenced his life. Fiction which is so much derided these days for being merely a way of killing time Stevenson thought to be most influential. He wrote, 'The most influential books, and the truest in their influence, are works of fiction. . . They do not pin the reader to a dogma, which he must afterwards discover to be inexact, they do not teach him a lesson, which he must afterwards unlearn. They repeat, they re-arrange, they clarify the lessons of life, they disengage us from ourselves, they constrain us to the acquaintance of others, and they show us the web of experience, not as we can see it for ourselves, but with a singular change—that monstrous, consuming ego of ours being, for the nonce, struck out. To be so, they must be reasonably true to the human comedy, and any work that is so serve the turn of instruction.'

In fiction Stevenson found instruction without dullness and illumination without any false brilliance. In it he found truth to life and something that could add to the experience of the world. Above all, he found in novels something that could release and intensify his noble emotions. On account of these things he paid a generous tribute to *The Three Musketeers* and *The Pilgrim's Progress*. He found some-

thing similar by reading and seeing the dramas of Shakespeare. They were a call to large thinking and living generously. In the same way, he found much stimulus in the study of the essays of Montaigne. These seemed to be full of wisdom to him and in their pages he heard the voice of moderation and of reason. Whatman's *Leaves of Grass* made him examine the foundation of his beliefs and faith, and from it there came a voice to him calling upon him to be himself and to not lead a conventional life. He found much sustenance in Goethe's *Life* by Lewes and in the *Meditations* of Marcus Aurelius. The one showed him how life is a mixture of good and evil and the other showed him how noble is the practice of virtue. Herbert Spencer and Wordsworth helped him to discover new sources of joy and *The Egoist* told him all about those repulsive traits in human character which a person should avoid. Augustine Birrell has also told us how much he owed to the habit of reading. He emphatically denies the charge that books were a kind of dope or drug by means of which one could forget one's troubles and sorrows. But he asserted that books could comfort us even when we were faring badly or were in trouble or in sorrow. Nor can one forget that Ruskin called the study of books a noble fellowship. He believed that books brought us in contact with nobler, wiser and more feeling natures and thereby elevated and uplifted us.

But you will probably discount these eulogies of reading by professional men of letters. To you these might seem to be like tradesmen's advertisements praising their own wares. But if you ponder over them you will find that they were very sincere expressions of beliefs generally held. But it is not only men of letters who have been so eloquent in their praise of books. Even men of action have paid glowing tributes to them. It is said about Alexander that he used to carry the *Iliad* in a precious casket on his expeditions. Even the politicians and men of action of our own day have expressed their gratitude to the study of books. Lord Grey of Fallodon believed that reading for recreation is one of the sources of happiness and is the best and noblest means of pleasure. He therefore asked people to read poetry, philosophy, history and biography. He wrote, 'Some years ago, when I was Secretary for Foreign Affairs in England, when holidays were often long in coming, short and precious when they did come, when work was hard and exhausting and disagreeable, I found

it a good plan when I got home to my library in the country to have three books on hand for recreation. One of them used to be one of those great books of all time dealing with great events or great thoughts of past generations. I mention Gibbon's *Decline and Fall of the Roman Empire* as an instance of one such book, which had an atmosphere of greatness into which one passed right out of the worries of party politics and official work. Such books take one away to another world where one finds not only pleasure, but rest.'

'The second of my books would also be an old book, a novel which had been approved by successive generations. The third would be some modern book, whether serious or light, and in modern books the choice is not so easy.'

No doubt busy men of affairs have found rest and refreshment in the pages of books. In fact, there is nothing more stimulating than the study of master-pieces.

But politicians and busy men have found in these books something not only to refresh them but also something which has given them fine intellectual and moral training. They have taught them to know the best from the second best, to learn the truth and see things in a true perspective. In short, they have been very good intellectual and moral training for them. Nor has their influence been merely academic. They have given courage in the time of difficulties, patience in dealing with crises, hope in the midst of discouragements, and faith when everything foreboded disaster. The Earl of Baldwin once spoke of the debt which he owed to the classics. He found the study of Horace and Homer and Vergil not only refreshing but also morally uplifting. He said, 'If I may now strike a personal note, I think what I have gained is some sense of proportion, a standard of values, and a profound respect for the truth of words, which have been of use to me in my daily life. Add to these the perennial happiness I am fortunate enough to find in the sheer beauty of Latin and Greek and the thousand images they call up in the mind, and I am indebted to my early training more than I can ever hope to repay. I remember well the first election I fought. It was what was called an old fashioned election in an ancient borough now disfranchised. The candidate was expected to spend three evenings a week during the time of his probation in one or another of the public houses which

jostled each other through the constituency, listening to and vociferously applauding what, for want of a better name, was called, on the *lucus a non lucendo* principle, comic or humorous song. After a time I felt the need of a moral purge and a literal sedative. It was the work of a moment to find what my soul needed. When I came home at night from these orgies I seldom went to bed without reading something of the *Odyssey*, the *Aeneid*, or the *Odes* of Horace. By the date of the election I had read all the last named, and most of the others, not without labour in the dictionaries, not always with ease, but with care and increasing joy, and with the desired result that, though defeated, I had passed through the fire and the smell of burning was not on my garments.'

These books give us the courage to live decently, worthily and nobly. But sometimes they have given people a new faith and a new hope.

John Stuart Mill has recorded in his *Autobiography* how he felt acute depression at one time in his life. This depression resulted not only in bad nerves but in complete intellectual torpor, spiritual doubt and uncertainty. Nothing seemed to him worthwhile at that time and all the foundations of his life seemed to give way. He seemed to be experiencing the same feelings that Coleridge has described in the *Ode to Dejection*. He found at that time that everything was vanity and that the dreams of self-importance or those of the betterment of humanity were all worth nothing. He tried all sorts of remedies, but they all failed. At last the poems of Wordsworth fell into his hands. He read them and under their influence recovered his faith, his capacity for feeling pleasure and a new urge for living well. First of all, Wordsworth's descriptions of rural scenery gave him much pleasure. But more than this they gave him a new interest in the common things of life and deepened his powers of feeling. From them he learnt what real happiness is, and how that happiness can be attained. 'What made Wordsworth's poems a medicine for my state of mind,' wrote he, 'was that they expressed, not mere outward beauty, but states of feeling, and of thought coloured by feeling, under the excitement of beauty. They seemed to be the very culture of the feelings, which I was in quest of. In them I seemed to draw from a source of inward joy, of sympathetic and imaginative pleasure, which could

be shared in by all human beings, which had no connection with the struggle or imperfection, but would be made richer by every improvement in the physical or social condition of mankind. From them I seemed to learn what would be the perennial sources of happiness, when all the greater evils of life shall have been removed. And I felt myself at once better and happier as I came under their influence. There have certainly been, even in our own age, greater poets than Wordsworth, but poetry of deeper and loftier feeling could not have done for me at that time what his did. I needed to be made to feel that there was real, permanent happiness in tranquil contemplation. Wordsworth taught me this, not only without turning away from, but with a greatly increased interest in the common feelings and common destiny of human beings.'

As the poems of Wordsworth suggested to Mill a new way of life, so some books of Ruskin and Tolstoy changed the entire course of Mahatma Gandhi's life. He read Tolstoy's book, *The Kingdom of God is within You* and Ruskin's *Unto this Last* and both these books confirmed his faith in a simple life, in the righteous living and in humanitarian work. 'Tolstoy's *The Kingdom of God is within You* overwhelmed me. It left an abiding impression on me. Before the independent thinking, profound morality, and the truthfulness of this book, all these books given me by Mr. Coates seemed to pale into insignificance.'

Books have not been potent only in shaping individual life, but they have also changed sometimes the course of human history. Mussolini would not have been what he is to-day if at an impressionable period in his life he had not read Sorrel and Nietzsche. To Lenin the impulse for the reconstruction of society on a new basis came from the study of Karl Marx. The war mentality of the entire German nation was due to the fact that they were all saturated with the writings of Nietzsche. Books therefore have sometimes a radical and revolutionary influence on individuals as well as nations. They are like little seeds planted in human consciousness and from them we have a harvest of new hopes and new enthusiasms. Books thus have a vast social and political influence.

The uses of books are so manifold that they may be said to serve practically all ends of life. They have been a source of comfort and

solace and they have not merely refreshed and invigorated the human spirit, but have also stimulated and inspired it. They have cheered man in his loneliness, they have given shape to his thoughts, they have given a direction to his activities and they have enabled him to see order and purpose in this world of confusion and chaos. They have been a consolidating force in human history. Look at the millions of men held together by such books as the Vedas, the Bible, and the Quran. They have provided incentive for political reform, social amelioration and economic betterment. Human beings have owed more to them in their march forward than to anything else. They have thus been invaluable allies in the emergence of man from a state of barbarism into a state of culture and enlightenment. They have thus been messengers of joy, agents of progress and potent factors in human uplift.

But when we talk about the University of Books we do not mean desultory reading, but a planned course of study. We mean by it a course of self-imposed study, for it should be remembered that self-education is far better than any kind of education imparted at any school or university of the world. To say this is not to decry the education imparted at schools or at universities, but to affirm that the process of education that is voluntary and pleasurable is far better than that which is imposed on us by august and authoritative academic bodies. To say that this process of self-education can go on independently of books is to say something that is not wholly true. A writer like Stevenson or a dictator like Mussolini may deride occasionally this bookish education, but in his heart or hearts each of them knows that books are indispensable for a modern man. It is, therefore, necessary that remarks like the following should be taken for what they are worth.

‘I do not believe in the supposed influence of books. I do not believe in the influence which comes from perusing the books about the lives and characters of man.’

For myself, I have used only one big book.

For myself, I have had only one great teacher.

The book is life lived.

The teacher is day-by-day experience.

The reality of experience is far more eloquent than all the theories and philosophies on all the tongues and on all the shelves.

For the same writer has said elsewhere :--

‘ I have read the Italian authors, old and new, thinkers, politicians, artists. I have always been attracted by the study of our Renaissance in its various aspects. The 19th century with its artistic and spiritual contrasts, classicism and romanticism and their contrasts have held my attention. I have studied thoroughly the period of our history called *Risorgimento* in its moral and political essence.

I have analysed with great care all the development of our intellectual life from 1870 up to this moment.

These studies have occupied the most serene hours of my day.

Among foreign writers, I have meditated much upon the work of the German thinkers. I have admired the French. One of the books that interested me most was *The Psychology of the Crowd*, by Gustava Lebon. *The Intellectual Life of the Anglo-Saxons* interests me especially, because of the organized character of its culture and its scholastic taste and flavour.’

But the question is, how will you plan this course of reading? Please do not think that here I am going to describe the one hundred best books, of which the Victorians were so fond and about which the Americans talk so glibly even these days. I only want to urge that the modern man, if he has to live fully, must open his mind out to the various influences that are at work to be able to understand himself, his country and the world. He must get the aid of well chosen books. The very first thing he should do is to acquaint himself with some history. Not only should he read the history of his own country, but also get to know something of the history of the world. As to what books of history he should read for the purpose I would not like to lay down any hard and fast rules. Perhaps one reader would go to Wells’s *Outline of History* for this purpose and another would read Pt. Jawahar Lal’s *Glimpses of World History*. But whatever books he may read he should have only one idea in view and that is to get

a correct knowledge of the various movements of the human spirit that have shaped the course of human history. But one can further supplement one's knowledge of history by reading the biographies of some of those who shook the world and moved it in one direction or another. He should also supplement the study of these biographies by a few well chosen historical novels for they recreate the past as nothing else can do. But he should not rest content with reading only this much. He should try to read a few books on philosophy because it is only with their help that he can know the ultimate reality. The study of philosophy and especially of psychology and ethics will perhaps lead him to the study of science not only in general but also in some of its particular branches. He should study especially sociology and politics. Above all he should study some of those master-pieces of the world in which the human spirit at its best is enshrined.

It would be futile to suggest any particular books for this kind of reading. But the reader must be clear about his aims when he reads a book. Books have been divided into three classes by all discerning critics: books of information, books of entertainment, and books of inspiration. I think a discerning reader should read books which serve all these different ends. He should read books not only to know but also to refresh himself. He should read not merely for the sake of entertainment but also for the sake of inspiration. For all these three ends he will find thousands of books to pick from. While doing so he should remember that these books are not an end in themselves, but a means to healthier, more purposive and fuller living.

LITERATURE *VERSUS* VULGARITY

By MR. J. C. MATHUR, B.A.

The one reason why the world to-day seems more embittered than ever before is that literature has ceased to be a force in our lives. We have grown more and more thick-skinned, vulgarized, impervious to the wafts of refinement which the higher literature may blow on to us. What we can really call literature is a vanishing quantity. We only get

occasional glimpses of what can be called 'literary' in a confused mass of sensational and uninspired works on the one hand and propaganda productions on the other. There are books in every brook and sermons in every stone, but their impressions are as washable as of water, their form as bloodless as of stone. Still, they are a force in our times; they shape our lives.

Vulgarity lies at the root of our glossy civilization, and hence its antagonism to literature. For literature is a mighty smoothening and sobering agent. The humble and not the pedant, are its votaries. A certain deep-seated gentility marks the literary frame of mind, a sweet burden of modesty constantly weighs upon it. Maybe this modesty issues from the huge reservoir of experience which it has accumulated during its long sojourn amidst the "Grand Monarques" of the realm of letters. The whole human behaviour is, as it were, tempered, purged of its angularities; once you are admitted into the secrets of the greatest of minds, you come to realize how futile it is to be vain about your own 'kindergarten' triumphs.

The very attitude of receptivity which literature requires of its worshippers insists upon the presence of creative imagination in them. The mood of creation is the mood of serenity, and, if nothing else, imagination is a moral necessity to the human system, for the cultivation of refinement. A mind that is used to the visitations of those ecstatic absorptions in which all its energies are concentrated in an unruffled oneness shivering to burst forth into efflorescence, knows no distractions of matter-of-fact vulgarity. The joy of creation is consummated in the moment of tranquillity. The mind must first be emptied of extraneous, stubborn and revolting matter before it can become tranquil. Thus it is that creative imagination, in spite of the heat to which it works up the mind, bathes men in tranquil refinement and quiet gentility.

Literature presents life in miniature, with all its details and the varying shades of its colours. Like life, it abounds in contradictions and paradoxes, like life it touches the human heart at innumerable points and with innumerable degrees of intensity. One who has dipped in literature knows well enough how life itself tastes. Travel, wrote Disraeli, teaches toleration, and it does so because the man who travels

beholds the pageant of life from all angles and at close quarters. One who has known life in all its catholicity cannot help being tolerant. The same can be said of the wayfarer in the field of literature. He too has swept with his mind's eye the magnificent panorama, the very vastness of which dwarfs into insignificance the objects of our petty attachments and prejudices. Like Sterne, he can say to his enemy, "Go, poor devil get thee gone! Why should I hurt thee? This world surely is wide enough to hold both thee and me." Thus while his fellow-men dissipate themselves in wasteful quarrels, he passes onwards like the eternal traveller, who knows too well of life to be drawn into these petty bouts except as an amused spectator or a sober mediator.

Humanity, gentility, tolerance—these, then, are the gifts of literature. These I prefer to call 'antidotes' of vulgarity,—the baneful disease of our times. We have had too much of politics and economics. They have sapped our very vitals. They have made us vulgar. They have exacted the greatest sacrifice out of Man. A man dies for a certain cause, and this is a great sacrifice. But the greater sacrifice is of the man in whom dwells the spirit of literature and who kills this spirit for a certain cause. The one merely dies, the other lives in death. His is the true martyrdom.

The world today is a great martyr in the cause of politics and economics.

UNIVERSITY EDUCATION IN THE U. P.

RETROSPECT AND PROSPECT

By MR. B. G. BHATNAGAR, M.A.

One may without much impropriety take stock of University education in these Provinces during the last fifty years on this occasion of the Jubilee of the University of Allahabad. Although there were schools and colleges in the United Provinces even before the establishment of the University, yet a real landmark in higher education may be said to have been reached in 1887 when the schools and colleges in these Provinces were placed under the motherly care of the

newly established University at Allahabad. It was then started as an examining institution and continued to be such till the year 1922, when the Allahabad University Act of 1921 changed it into a teaching and residential University. During the first 35 years of its existence the University and the various colleges affiliated to it did much to spread education amongst the people of the United Provinces and Rajputana and its *alumni* of those days are spread over the whole length and breadth of India. Taking into consideration the limitations of the situation, its achievements were truly great. Along with other Indian Universities it was started to produce literate men for taking up various services open to Indians at different times. This object it fulfilled remarkably well, and into the bargain produced eminent lawyers, judges, historians and scientists too. Men like Dr. Ganganatha Jha, the late Dr. Satish Chandra Banerji, Sir Tej Bahadur Sapru, Sir Shah Muhammad Sulaiman, the late Dr. Ganesh Prasad and a host of others are all the products of the University in its earlier days. But these were geniuses who may well be said to have risen to eminence in spite of University education. The system as it then existed was not designed to foster scholarship and research. However, during the first quarter of the 20th century it was felt in responsible quarters that India needed persons something more than having mere literary ability in English and a Commission was appointed to suggest ways and means to improve the system of University education.

As a result of the recommendations of the Sadler Commission three residential and teaching Universities, after the model of those found in Europe and America, were established in India, of these two, *viz.*, the Universities of Allahabad and Lucknow were started in the United Provinces. Under the new constitution the University has now functioned for 15 years. Are the results encouraging? Has the change justified itself? My answer is in an unqualified yes. I know a hundred and one things which could with justice be said against the University; but these are abuses incidental to all affairs where human agency is the prime mover. They are not incidental to the system itself. Besides the system has not yet been given a fair deal.

Looked at from one point of view a residential and teaching University has three limbs: (1) the Vice-Chancellor, (2) the teachers, and (3) the Library. (I must offer my most sincere apologies to those bud-

ding enthusiasts—the students of today—for not counting them as a limb of the University. I know this will terribly hurt them. But if the raw materials in a factory could be classified as a part of the factory then I would be prepared to concede their claim also. True the *raison deator* of every factory is the shaping of the raw material into the finished product. But this is the function of a factory and not a part of the factory itself. The same is true of the students in a University.)

Since re-organisation we have had three Vice-Chancellors. A Vice-Chancellor of a University such as the Allahabad University, if he is to discharge all that the Act and Statutes of this University require him to do, must be a scholar well seasoned in research and must have administrative qualities of a particularly high order with a great deal of go in him. Then and then only can he take a sympathetic view of the needs of the University on its academic side, and keep the conflicting tendencies of a democratic constitution in harmony. Sir Claude de la Fosse, the first Vice-Chancellor, was a notable administrator, but although he knew a great deal about schools and school education he was too much Indianised to take a comprehensive view of what the University needed. He left the scene just when the University was set going, perhaps a bit too early. Had he stayed a year or two longer he would have succeeded in placing the University on a sound financial footing as he would have had the support of the then Government. Whatever some of us may think about him, I have not the least doubt in my mind that he worked earnestly and honestly for the good of the University. His energy was remarkable. He worked for about two hours in his office and then after lunch was on his feet visiting one or the other department. He knew every teacher of the University and had a good idea of his work and worth. Most of the students were also known to him. His decisions were quick and summary. His rewards for services done to him and his punishments for thwarting his wishes were equally prompt. But he knew how to forgive even his worst enemies with the best of grace.

With all his good intentions Sir Claude made one blunder and that was to take the whole of the Muir College staff in the University. Of the then existing staff there were about half a dozen teachers such as Dr. Nil Ratan Dhar, Dr. P. K. Acharya, Professor Randle, Professor Dunn, and one or two other younger men whom alone a man

fully conversant with the standards and requirements of a modern residential and teaching University would have taken on the University staff. But Sir Claude was an administrator and he transferred the whole lot of them to the University. True a great many men were also recruited from outside. But most of the Muir College men were senior members of either the I.E.S., or P.E.S., and therefore most of the Professorships and Readerships as also most of the Headships of Departments went to them. As Heads of various Departments they set with a will to perpetuate the Muir College traditions and Muir College methods of teaching and did everything in their power to see that there was as little change as possible in the old system of teaching and assessing the worth of students. The result was that the University in its re-organised form instead of becoming a replica of Oxford or Cambridge, became an enlarged edition of the Muir Central College, with just a few touches of Oxford and Cambridge in the outer shell.

His successor in office was Mahamahopadhyaya Dr. Pandit Ganganatha Jha, a ripe old man of the Muir College—a seasoned teacher and researcher in whom one could hardly suspect a talent for administration. But the venerable Pandit was quite up to his new administrative rôle. For more than nine years he ruled over the destinies of the Allahabad University and even today the University is what he left it.

While Sir Claude had no prejudices either in favour or against the institutions which the reorientation of the University necessitated assimilation with it, Pandit Ganganatha Jha had a great feeling for the Muir Central College. The Muir Central College being an institution maintained by Government was merged in the University and thus lost its identity; while the privately managed and financed institutions like the Ewing Christian College and the Kayastha Pathshala University College were allowed to continue as Colleges under the new organisation as distinct limbs of the University. To this Pandit Ganganatha Jha could never fully reconcile himself and he fell in with the rest of the Muir College men, who were already occupying most of the key positions in the University, to perpetuate as far as possible the traditions and practices of the old system.

While at the Oxford and Cambridge Universities life centres in the Colleges and Halls and only formal lectures are delivered at the

University, in our reorganised University the main work is done by the University and in the University, and the Colleges do the tutorial work for a fractional number of students only. It must be said to the credit of Dr. Jha that although he did not believe in the Collegiate organisation as an integral part of the new University and therefore did not go out of his way to help the Colleges to fully develop, yet he was generous enough to let them exist and did not do anything which could be said to have thwarted their unaided growth. For their uneventful existence the Colleges themselves are very largely responsible. But for keeping the University an enlarged copy of the Muir College and for not developing Collegiate life for students other than those resident in or attached to the Ewing College and the Kayastha Pathshala, Dr. Ganganatha Jha was mainly responsible.

Pandit Ganganatha Jha had a wonderfully clear head and an equally ready grasp of things. Nobody could take him in unawares, and nothing could induce him to do an injury to anyone.

Pandit Ganganatha Jha was followed in office by the present Vice-Chancellor Pandit Iqbal Narain Gurtu, who has maintained the old order intact and steered the ship of the University safely during a period by no means free from perplexing situations.

In the second limb of a modern University, *viz.*, the teachers, the University of Allahabad started unevenly. Some departments had from the beginning as their Heads, gentlemen who were imbued with the spirit of study and research and this spirit they succeeded in imparting to the teachers of their departments as well as to the students who came in contact with them. The other departments unfortunately did not fare so well. But the time spirit is working and things cannot long remain what they are. Other departments also have been trying hard to come in line with the progressive ones.

Compared with the teachers of a modern European University, barring a few, a great majority of our teachers would hardly come up to the level of their western compeers. For this the teachers as well as the University are responsible. University authorities could not be accused of having wasted any money and thought on the encouragement of habits of research and study amongst the teachers. They have persistently insisted in accord with the Director of Public Instruction, that every teacher must put in at least 18 periods of teaching work per

week. And the unthinking public has continuously expressed in no uncertain terms that even this is too little for the fat salaries of University teachers.

In responsible circles the realisation is still lacking that the main work of a University teacher does not begin and end with the teaching that he actually does in the University between 10 a.m. and 4 p.m., but lies in the quiet hours spent either in the laboratory or in the library at home or in the University in patient study and research and, that for this both leisure and adequate pay are absolutely essential. Unless this fact is recognised by all concerned the University teacher is not likely to get proper conditions for doing his best, and unless he gets them no development of knowledge is possible.

Then there are University teachers, who have not made any good use of even the limited opportunities of study and research offered to them by the reorganised University. They give a handle to those who strenuously advocate 18 to 24 hours per week of lecturing work per teacher and a further reduction in their emoluments.

On the whole my considered opinion is that neither the public nor the State nor the University authorities have done much to ensure that study and research would be encouraged in the University. The public and the State should have provided suitable conditions for the encouragement of study and research amongst the teachers and students, and the University authorities should have developed a machinery to ensure that the teachers and students were making full and proper use of the facilities provided for them. Both have sadly neglected.

The third limb of a modern University is the Library. Before re-organisation the three Departments of Economics, History and Law used to get between them Rs. 10,000 per annum for books, and this is the amount that we have been getting for books year after year since re-organisation even though we have twenty departments in the University. Whereas in the pre-re-organisation days, our Economics and History sections of the Library were the best and the most up-to-date in the whole of India, today they are sadly poor. And probably this is true of the other Departmental sections also, as a paltry sum of Rs. 500 per annum for subjects such as Politics, English, Philosophy, Chemistry, Physics, Botany and Zoology could hardly be expected to buy all the latest books and periodicals. A residential and teaching

University without a good library is like an Arab horse with one leg injured.

Having discussed the three limbs of the University and their present condition I may pass on to observe that we in this University have not been very clear in our mind about the aims of University education. A University is essentially a centre for the development of culture and knowledge, and not a technological institute preparing youngmen for this or that avocation. Nor is it essentially a seminary for preparing students for various Degrees. What a University should aim at is the shaping of youngmen and women in a way so that firstly they become gentlemen and gentlewomen and secondly in them a full capacity is developed to think for themselves in a logical way. They should be capable of forming their own opinions on the various problems, that are likely to be present before them in the future. This should be the prime objective of University education and to this end all of our efforts should be directed.

This objective in Universities like Oxford and Cambridge is sought through, (1) formal lectures in the University, (2) Tutorial Instruction in the Colleges and Halls, and (3) various other activities such as those in the University Union, the Athletics and so forth.

In a modern University each University teacher specialises in a particular subject or generally in some branch of a subject. On this he delivers a course of lectures per term for the various grades of students. No teacher is expected to deliver more than four or five lectures per week. The rest of his time is devoted to study and research. The lectures that a University teacher delivers are not designed simply to cover a certain curriculum laid down by the University for passing a certain examination. They are designed to give insight into a subject and are the result of independent study and thought of the teacher. They seek to provoke thought and foster inquisitiveness. It is in the College under the guidance of his tutors that the student studies the prescribed text books, and reads supplementary literature to satisfy the curiosity aroused in him by the University lectures. He discusses the various lines of thought aroused in him with his tutors and class-mates, and then forms his own ideas about things. The teaching and study carried on on these lines are invigorating and develop a love for knowledge. Our University lectures

follow slavishly the various items given in the prospectus, and are usually so comprehensive and so prosaic, based as they mostly are on certain prescribed text books, that very little is left for the student to do himself. Under such a scheme of lectures the tutorial work degenerates into explanation of ideas not understood by the students in the class lectures and text books and correction of essays written by the student which again are mostly based on the material already supplied to them by the lectures and quotations from text books.

Teaching and study carried on as at present in our University though decidedly superior to what they used to be in the pre-reorganisation days have yet to change in many directions before they can come up to the level of those Universities whose system the reorganisation sought to introduce.

So much for the Academic side of University life. But University education is much more than mere acquisition of knowledge. Its objective as pointed out by me before is the shaping of youngmen and women into gentlemen and gentlewomen with character in them. The framers of the University Constitution recognised this and that is why they provided for Tutorial system and the Board of Residence, Health and Discipline. Just as the Academic Council was provided to look after the academic side of the University education, so the Board of Residence, Health and Discipline was, as its name implies, designed to look after the conditions of residence, health and discipline of the student.

At present in the two Colleges as also in the University the students meet the tutors more or less formally in stated periods generally once a week. As the number of students in each group is usually large the tutor is hardly able to give five to ten minutes for each student. This gives the modicum of time for discussion on topics related to the class work and practically no time is left for looking into the general life of the student. If even fifty per cent. of the students in the tutorial groups took their studies seriously, I am more than doubtful that under the existing conditions the tutor would find time to do justice even to the academic work. But mostly students write essays formally and have one or two formal difficulties and these are formally looked into by the tutor. The whole atmosphere of the tutorial classes is formal, and the tutors' other equally important work of helping

his wards to become men and women of character is very largely ignored.

In order to give the new system a fair deal the University must confine itself to lectures only and all tutorial instruction must be centred in the Colleges. The two existing Colleges should be helped and encouraged to further develop on right lines, and the existing University hostels and privately managed hostels should be converted into Colleges and Halls and at least three more residential Colleges with a capacity to accommodate seven or eight hundred students should be constructed and equipped. The persons in charge of tutorial instruction must reside either on the College premises or in close vicinity of it. The present practice of having a large number of students residing in the city who are looked after by the Delegacy is not quite satisfactory. With all the goodwill the Delegacy cannot do for the students what a College can do. Only students whose parents reside in the city should be allowed to remain outside the College or Halls and they should be placed under the care of the Delegacy. The lines on which the Delegacy has evolved are completely sound but it has so much on its hands that it can hardly do justice to it.

A word may be said about the Board of Residence and Health and Discipline. As its name implies all policies regarding the conditions of residence, health and discipline should emanate from and discussed by the Board. From the University Calender I find that its constitution is thoroughly satisfactory, except that I would give a slightly greater representation to the non-teacher members of the Court. But the University Minutes disclose that this Board has not wasted its valuable time on such useless problems as the diet of students or the provision of physical exercise for all and sundry of one sort or another. Nor has it ever thought it fit to look into the question as to how students pass their time. These are vital questions in relation to students as the habits of thought and action formed during this the impressionable age would continue with them throughout life. The formation of character, of strong body and of habits of regular work should be the prime concern of the Board of Residence and Health and Discipline.

So far I have tried to give an idea of what things have been and have also criticised them freely in the light of what I as an individual, believe they should be. What are, again according to my individual

judgement, the prospects. The changes that are absolutely essential in our University to reach the ideal are all such as need money and a Vice-Chancellor who will have ideas and who will have the courage to attempt translating those ideas into practice. Too much regard for the established order of things even though it admits of change for the better does not quite suit a modern residential and teaching University, specially if such a University is to be evolved out of the materials of an already existing system. If we had a clean slate a Vice-Chancellor with ideas and money could succeed in building up a really first class residential and teaching University. But as we started with an already existing system and foisted a democratic constitution on it, we must have in our Vice-Chancellor something more than ideas and courage. He must be a man who has a great capacity of eradicating fissiporous tendencies of a democratic constitution, and then of marshalling the available forces to the ends in view. He must have these in addition to the qualities that I have already mentioned as the *sine qua non* of the Vice-Chancellor of a residential and teaching University.

Is the money within sight ? With the experience of the University during the last fifteen years one would be inclined to think that for years to come money in requisite quantities will not be forthcoming either from the public or from the Government. But I am not inclined to take that view. A Vice-Chancellor of the type that I have mentioned within the body of this paper is likely to secure money both from the public and the Government and in this view I am encouraged by the response of the public on the occasion of the Jubilee. The main problem before us is to find a man who could be placed on the Vice-Chancellor's Gaddi with perfect confidence and who would satisfy the conditions laid down by me. Is such a man within sight ? My answer is yes. He is in the shaping and not far from us. As a boulder detached from the high perched rocks of the Himalayas, takes time to roll itself into the final shape when it can be placed in a shrine to be worshipped as Salig Rama, so our Vice-Chancellor of tomorrow is yet rolling to have his angularities smoothed.

THE FOUNDERS OF INDIAN POLITICAL ECONOMY.

By MR. G. D. KARWAL, M.A.

Dadabhai Naoroji, Romesh Chandra Dutt and Mahadev Govind Ranade laid the foundation of Indian Political Economy. As amongst them the contribution of Ranade was the greatest. His views were not only comparatively broad-based, but also sound. And, he gave us the phrase 'Indian Political Economy'.

To the trio political economy was an art rather than a science. Their concern was with the poverty problem of India. They gave what they considered to be the causes of Indian poverty and suggested remedies for its removal.

Naoroji and Dutt laboured a good deal to prove the existence of Indian poverty. The proofs they offered of it were (1) the low national income of India, (2) the low export and import trade figures of the country, (3) the low revenue returns of the Government, (4) the low standard of living of the people, and (5) the heavy toll that death took of life whenever a famine or an epidemic visited the land.

Ranade did not trouble himself on this score. He thought that the poverty of India did not need proving. It was self-evident. One had simply to walk through the streets of our towns and villages to be impressed by its grim existence.

According to Naoroji and Dutt Indian poverty was the direct consequence of the British connection. Ranade thought that it was "an old, old inheritance" although it had been intensified by the impact of the West on India.

Naoroji attributed the poverty of India to one and only one thing—the annual drain of wealth from India to England. This drain was small at first but it increased considerably when the British domination became consolidated and extensive. It was £5,000,000 in 1835 and rose to £30,000,000 in 1900. It was represented by the excess of our exports over the imports and consisted of (1) the remittances of European officials to England of their savings, pensions and salaries paid in England, and Government expenditure both in England and India; and (2) similar remittances by European non-officials.

The drain of wealth from India to England was an abstraction from India's scanty resources. This meant that not only was India unable to effect any savings, *i.e.*, accumulate capital, but also that her labour force was deteriorating, becoming unable to reproduce as much as before. The candle was burning at both ends. The poverty was becoming more and more pronounced.

Dutt approached the problem of Indian poverty through that of famines. Famines had been rather frequent in the last quarter of the nineteenth century and had wiped out a large proportion of the population. He said that they were immediately due to a failure of rainfall but in ultimate analysis their cause was the resourcelessness of the people. The resourcelessness, that is, the poverty of India was, he contended, the result of three factors. One was the decline of Indian industries which had thrown vast numbers of the populace on the land and made agriculture the main source of India's national wealth. The second was that Agriculture, our chief industry, was working under great handicaps. It was dependent on nature for water supply and was burdened with a tax that was at once heavy, uncertain and fluctuating. The third was the unsound financial administration of India. The Government of India was "the most expensive on earth." It remitted to England about one-third of its revenues annually.

"If manufactures," he concluded, "were crippled, agriculture overtaxed and a third of the revenues remitted out of the country, any country on earth would suffer from permanent poverty and recurring famines."

It should be noted that although Dutt regarded the causes of Indian poverty as being three yet his emphasis was on the land tax—its heaviness and uncertainty. Indeed, the other two causes revolved round it. The decline of industries had made agriculture the chief industry of India and the unsound financial administration of the country was the cause of agriculture being heavily taxed.

Ranade analysed the causes of Indian poverty as being (1) the dependence of India upon the single resource of agriculture which was the result partly of foreign competition—"not because it is foreign but because . . . it is the competition of organized skill and science against ignorance and idleness," partly of the economic policy of the Government which encouraged agriculture to supply raw materials to England,

and partly of the development of the means of transport and communication and the establishment of the freedom of exchange, (2) the disorganized state of credit in India or lack of credit and banking facilities, (3) the laws like the Limitation, Stamp and Court Fees Acts, (4) the unenterprising spirit of the Indian people, and (5) most important of all, the land policy of Government which regarded land as its monopoly, increased assessments at its discretion and collected them rigidly.

Ranade, it may be pointed out, did not think that the drain technically called 'Home Charges' had much if any thing to do with the poverty of India. The Home Charges were, he said, payments for goods supplied by or loans received from England or for administration, defence and pensions.

According to Naoroji the remedy for the poverty of India lay in the drain coming to an end. He wanted England to end it by letting India keep what she produced, helping her reduce the burden of interest on the public debt, employing the minimum foreign agency and sharing the payment of what minimum was employed with India.

In Dutt's view the poverty of India could be removed if Government helped India start new industries and revive old ones; if the handicaps—failure of rainfall and the heavy and uncertain land tax under which Indian agriculture worked—could be done away with by developing the means of irrigation and regulating and moderating the land tax; and, if the financial administration of the country was put on a sound basis by reducing the civil and military expenditure, employing large numbers of Indians, an imperial guarantee lowering the rate of interest on the public debt, and limiting the purchase of stores in England to the minimum feasible.

As, according to Dutt, the land tax was the central cause of Indian resourcelessness, he particularly stressed its reform as a remedy for that ill. His suggestions on this score were:—(1) In tracts not permanently settled where the state received the land-revenue through the landlords 50 per cent of the rental should be the limit to the state demand; (2) Where the state received the land revenue direct, its demand should not exceed 20 per cent of the gross produce and the average for the district should not be more than 10 per cent; (3) Enhancements of land-revenue should not be permitted except on the ground of an increase of

prices; (4) Settlements should not be oftener than once in 30 years; and (5) No cesses should be imposed in addition to the land revenue except for purposes directly benefiting the land and their total should not go beyond $6\frac{1}{4}$ per cent or one anna in the rupee.

Ranade thought that the poverty problem of India would be solved if the following measures were adopted :—(1) Industrialization of the country mainly with Government aid. The Government should provide guidance, superintendence, custom and capital. (2) Emigration—to give immediate relief to the congested areas. (3) Judicial reform—amendment of the Limitation, Stamp and Court Fees Acts. (4) Reorganization of credit—in other words, provision of loan and banking facilities. He wanted the Government to institute district and city committees of capitalists with power to receive deposits and lend money on the security of land. And, (5) reform of the land policy. This was the *sine qua non* of India's material progress—particularly on the agricultural side. He suggested that the Government should divest itself of proprietary rights in land confer such rights on the ryot and regard the land tax as any other monopoly taxes. Specifically, he wanted that a permanent ryotwari system should be established with assessments fixed in grain and commuted in money values every 20 or 30 years, and the net profits from the land should be divided half and half between the state and the ryot.

The views of Naoroji, Dutt and Ranade were criticised at the time they wrote. The critics stated that either India had not deteriorated under the British in material prosperity but had actually improved or the causes of her poverty were different. As evidence of India's improved prosperity they instanced the rise of prices and wages, the increase of trade and the development of public works. And the causes of Indian poverty they narrated as the increase of population, the low standard of living of the people, the presence of the sowcar, etc. Naoroji and Dutt in particular and Ranade to a certain extent replied to these criticisms by pointing out that the rise of prices and wages was not healthy for it was not the result of wealth pouring into the country—wealth was actually going out of the land—but was due either to scarcity which was the handmaiden of every famine or to greater demand for food and labour in localities where public works were being built. Similarly, the increase of trade was not real—the increase of trade was

real only when it brought in money for the excess of exports over imports and not when that remained out of the country and was a deduction from the excess country's wealth—as was the case in regard to India. As regards public works they contended that the railways on the extension of which Government had spent so much and which had been responsible to a considerable extent for the public debt of India mounting up, did not produce wealth but only circulated what was produced by other agencies. Also they stated that the railways had not been a success financially because they had meant an actual loss to the Indian exchequer of about 40 million sterling, because this amount Government had to pay to the companies to make good the difference between the guaranteed interest and the amount earned.

With regard to the causes of Indian poverty as given by the critics, Naoroji, Dutt and Ranade with minor differences explained that the increase of population and poverty do not necessarily go together. In England and some other European countries prosperity had increased side by side with population which showed that the increase of population was not a cause of our poverty. The low standard of living of the people they stated was the result of Indian poverty rather than a cause of it. Such also was the case regarding the presence of the sower. The poverty of the people forced them into his clutches.

Their views have been corrected on some points and amplified on others by other Indian writers especially since about 1911 when political economy began to be systematically studied and taught in India. For example, what they wrote on the drain has been amended and the truth about it clearly stated; and a sound notion of the productivity or otherwise of public works like railways has been given. Also a broader and clearer light has been shed on the causes of and the remedies for the poverty of India although the problem is still unsolved.

It must be pointed out in passing that the views that Naoroji, Dutt and Ranade expressed were considerably justified by the conditions obtaining in India at the time they wrote. Upto about the end of the 19th century the Government of India did practically nothing to advance the material prosperity of the country. It believed in *laissez-faire* and followed that policy with vengeance. All restrictions on exchange were removed by 1882. Railways were extended with great

speed. The industries of the country thus became exposed to the buffets of the competition of the industrialized West and went under. As a consequence the pressure on the land increased and the country became ruralized. Then in the last three decades of the century famines visited the land in more or less quick succession and swept away a large proportion of the population which meant that the power of resistance of the people was at the lowest point. Thus prosperity seemed to have gone down. Then, the railways did not prove to be a paying concern—they paid their way for the first time, in 1900; on the contrary they involved India in a loss of about £40 million. The Home Charges were on the increase and had mounted up to £30 million in 1900. Also the higher posts were the monopoly of Europeans and Indians had no hand in the management of the affairs of their own country.

Such being the circumstances when they wrote, there is small wonder that Naoroji, Dutt and Ranade held the views that have been briefly noted. However that be, the services of the trio to the cause of Indian political economy must not be lost sight of. Collectively they started discussion of Indian economic problems and thus may deservedly be called the founders of Indian political economy. They called special attention to the palpable poverty of India and were to no small extent responsible for Government doing what it did to relieve the situation notably under the Viceroyalty of Lord Curzon. Individually their service consisted—that of Naoroji in raising the drain to the status of a theory, that of Dutt in pointing out the iniquity of the heavy land tax, and that of Ranade in raising Indian economic problems above political considerations by adopting a more scientific attitude in his approach to them and giving us the expression ‘Indian Political Economy.’

COMMERCIAL EDUCATION IN THE U.P.

By MR. K. L. GOVIL, M.A., B. Com.

India is in renaissance. One can discern its tendency everywhere—in politics, economics, education, social organization and religious concepts. The western institutions are grafted or superimposed on the old indigenous system in all spheres of life. There is no evolution or spontaneous growth of the indigenous forms.

Politically, English-educated India believes in democratic institutions whilst the masses have Ram-Rajya as their ideal. Socially-educated India does not believe in the caste system and the joint-family organization. In fact, both are breaking asunder under its influence. As against this the masses adhere to the old institutions. They rigorously observe the rules of the caste system, and are generally members of joint families. They believe in and practise all religious dogmas and rituals. Economically on the one hand we have the most modern machines and joint-stock enterprises run on western lines by western people or by people educated on those lines. On the other, we have the most antiquated and antediluvian types of business organizations. In spite of all competition from Japan, the United Kingdom and our country mills about 30 per cent of our cloth demand is met by the handloom even to-day. We have archaic forms of production side by side with the most modern ones.

We are thus in a transitional stage. Signs of regeneration are visible everywhere. But under the influence of conflicting ideologies we have no definitely chalked out path on which to tread. Education, for example, with which we are principally concerned in this paper is in the same predicament. That it needs reorganization nobody can dispute. The Government appointed a Committee of experts from whom we expected much more as generally we do from Committees and Commissions. Every day we read criticisms and comments of our present system. Fantastic proposals are being made from all quarters. But with due deference to the opinions of our critics I must say that much of the criticism of our educational system, especially in regard to unemployment, is baseless. Universities and other educational institutions cannot create employments. They are seats of learning and

culture where the alumni can have a wider outlook and develop their faculties of observation, imagination, reasoning, and judgment.

We admit that the number of our unemployed youths is increasing. How to face this situation then? A change in the educational system alone will not do. The real remedy lies in the industrialization of the country. It is here that our educated youngmen can be employed. Government services cannot absorb the growing number of our educated youngmen and nowhere in the world have they. Industry and Trade will open new careers for them. The Convocation address delivered by Sir Visveswarayya to the Benares Hindu University graduates was highly practical and full of hope and courage. "Industrialize or Perish" was the keynote of his address. Sir Purushottam Dass Thakur Dass on a similar occasion at the Lucknow University stressed the same point. Many other eminent leaders and thinkers have made similar observations.

We have plenty of raw materials and an extensive national market. According to experts there is no dearth of capital too to finance our industries. Government loans are over-subscribed in minutes. Sugar, Cement, Banking, and Iron and Steel industries have taken crores from investors in the recent past. What the investor needs is a little assurance from the State in the form of Protection or guarantee that his money is safe and that he has fair prospects of getting dividend on his investments. What we really lack most are: (1) a forward economic policy of the State and (2) the right type of men to bring about the economic regeneration of the country. Economic policy involves the question of tariff, trade agreements, foreign exchanges, railway rates, etc., etc. As for the second, all energies of the educationists, social reformers, and the State must be concentrated on this vital problem—"the improvement of man." An entrepreneur or industrialist exploits the resources and adds to the wealth of the country. He creates employment for self and thousands others. He augments the earnings of the railways and fills the coffers of the State. We need more and more of Tatas, Purushottam Dasses, Birlas, Kamlapats, Dalmias and others. Our problem is more of production rather than of distribution.

How to achieve this end? At present our best students compete for a few posts of I.C.S. and P.C.S. Only a few of them succeed; the

rest lead disgruntled lives. Every effort must be made, by propaganda or otherwise, to divert the intellect of the country to Industry and Trade. The status of a Government official is supposed to be higher than that of an industrialist, businessman or farmer, in the social hierarchy. At present even a millionaire has to look up to an I.C.S. This outlook must change. We hope it will change under the new regime. Brains are cheap for any price in industry. They can work wonders.

While we do not minimise the importance of a sound general education for all, we believe that for purposes of industrialization of the country the best form of education will be scientific-cum-commercial. So far scientific education has received the attention of our youngmen, not because they are interested in the industrialization of the land but because they could get jobs and at present scientific subjects are included in the courses of competitive examinations. Unfortunately commercial subjects have been ignored all along. But the fact is that in the modern world even inventions are useful to society only when they are converted into commercial propositions. It is why the principle of limited liability has been characterized as one of the most important inventions of the last 150 years—the other being the Steam Engine. All modern industry is dependent on the joint-stock principle.

Some of our commercial men think that there is no necessity for vocational training in school for commercial life, and that the proper way to learn business is to do so by entering business and starting at the bottom. They hold that a scholastic education beyond the elementary course unfits a man for participation in industrial wealth, and in support of their contention they give the example of self-made men—men of limited education or none at all.

An analysis of these examples will show that these self-made men have succeeded not because of their lack of scholarship, but because they made up for that lack by self-education—a course which developed not only their practical qualities, but trained their power of observation, judgment, imagination and reasoning. And though measured in terms of rupees and annas these men were successful, yet owing to their efficient education they still lack the capacity for the apprehension of those finer elements of life which constitute the spiritual inheritance

of the race and the appreciation of which makes life richer and more significant.

Some of these self-made men possessed that genius for business which could overcome all obstacles. Others of that class might have done better with school education. At any rate the education of the vast majority of men must be directed by the school. Furthermore the problems of industry are becoming more and more complex every day. They need the exercise of the highest judgment and imagination in solving them. Here it will not be out of place to quote an extract from the address of our present Viceroy Lord Linlithgow on the subject of "The University Graduate in Commerce and Industry" at the fourth Congress of the Universities of the Empire, 1931.

'I deal then with the average boy, and it appears to me that the problem may usually be stated in this fashion. If he goes to a University, will he gain more in terms of general intellectual equipment, in outlook, poise and power of leadership than he may lose in seniority in his business, or by some postponement of the time of his learning the technique of his profession? In a majority of cases I am inclined to think that the appropriate answer to the question is that the young-man will seem in the earlier stages of his business career, to have forfeited something of professional advantage by the fact of his having taken a University course, for he will join his firm two or three years older than those of his fellows who have passed direct from school to their professional career; but that this handicap—assuming the man means business and has in him the roots of the matter—is eliminated by about the age of thirty and that by the middle thirties and onwards to the peak of the earning life, the university experience should prove an important, and in many cases a decisive, advantage. When the man enters that period of his career in which he is called upon to exercise independent judgment, reliance upon his own opinions and executive power and leadership, he should, if his reactions to the complex of university life have been normal, prove himself a better man by reason of such experience.

. . . . No man, however brilliant in technique, can be a great surgeon if his philosophy is jejune or awry. Equally, if you examine the equipment of those who in the field of commerce and industry have succeeded beyond their fellows, rising some of them even to the heights

of constructive genius, you will discover in them just those qualities of heart and mind and character which should come to the man who uses well his time at a University.

I believe that there will always be a demand in commerce and industry for the University graduate who has made the best use of his opportunities at his university, and who means to put his heart into his work. There will always be a brisk market for men of good calibre.

Commerce and industry have to-day a greater need than ever before for men of sympathy, of breadth of outlook, and of public spirit; men nurtured in that tradition which leads them to love truth and beauty for their own sake. For indeed it is eternally true that "Where there is no vision the people perish." Commerce and industry throughout the Empire afford to the graduates of our Universities an ever-widening field in which to make their contribution not only towards the material welfare of our communities, but also to the highest service of mankind.

We hope our popular Governments will help education with their constructive suggestions. Education has been receiving a niggardly treatment. According to the census figures of India for 1831 only 8 per cent of the population of the age of 10 and over were educated, as against 95·7 per cent in U.S.A., 92·5 per cent in U.K., 99·7 per cent in Germany and 96 per cent in Japan. Russia has reduced her illiteracy from 83 per cent to 10 per cent since the revolution. The expenditure per head of school-going population is Rs. 22·3 in India, Rs. 275 in U.S.A., 172 for U.K. and Rs. 58 for Japan. In Soviet Russia in the four-year period in which the five-year plan was completed roughly Rs. 1,584 crores was spent on education giving Rs. 158 per head of population under instruction. This shows the extent of our illiteracy and ill-equipment. Let us hope that under the new regime illiteracy will be wiped off from the land, and higher education, both general and technical, will receive a greater and greater impetus. We believe that it will be an unhappy day for the nation if those in charge of our administration treat higher education shabbily. We may not realise it for the moment. But that will amount to the destruction of the fountain of learning and consequently of all progress. Twelve thousand graduates a year for a nation of 35 crores is not one for which we can feel proud.

The present facilities for commercial education in these provinces are very meagre. There is hardly any school of commerce in the whole province. Commerce is an optional subject for the High School Examination and it is offered by about 600 students out of a total of about 15,000. In the Intermediate standard 11 out of 66 colleges teach commerce. None of the Government Colleges teaches commercial subjects. About 400 candidates out of 6,000 appear in the Intermediate in Commerce Examination. The Universities of Allahabad, Lucknow and Agra have Bachelor's degree in Commerce. Roughly 150 graduates in commerce are turned out every year. There is no M.Com. degree in any of the Universities in the province.

Commerce is included in the curriculum of the Vernacular Final Examination, but it is hardly taught anywhere in the province. There is a great need of diverting a fair number of students to commerce at this stage. These boys, if they leave studies after they have passed their Vernacular Final Examination, should prove excellent Munibs and Assistants in small business houses. They must be taught in three years' time something about Banks, Insurance companies, carriage of goods by rail, Post Office, etc., etc. Naturally these men must prove more useful to the indigenous businessmen than their old Munibs who pick up these things by experience only. I would suggest that the candidate who takes up commerce must take up English as well. As most of these forms are in English, they must have a workable knowledge of the language in which these forms are drawn up.

Next, commerce as an optional subject must begin from class VII in the High School. In classes VII and VIII the boys must be taught the indigenous system of Book-keeping and should familiarise themselves with some of the business forms like cheque, bill of exchange, etc. From class IX to class XII commerce should be taught in English. It may look anachronistic but the fact is that a knowledge of English is necessary to every businessman and industrialist. English boys taking up business courses are required to learn foreign languages. In the University stage our youngmen should be equipped for commercial professions such as Auditors, Secretaries, Bank Agents, Actuaries, Salesmen, and Advertising Agents, Railway Experts, etc., etc. Commerce graduates are suited not only for business houses but for Govern-

ment offices as well. They are best fitted for Income-tax offices, Industries Department, Railway offices, Customs, etc. At present there is a certain amount of prejudices against commercial education, which is partly due to ignorance about the scope of the subject and partly because this subject is comparatively new. Some people think that commercial education ends with a little knowledge of Stenography and elements of Book-keeping. It is absolutely a wrong notion. On the contrary, *inter alia*, it includes Company amalgamations, Co-operative Finance, Industrial Organization, Tariff, Trade Agreements, Foreign Exchanges, Money and Currency problems, etc., etc. All these subjects form part of our University syllabuses. Responsible persons enjoyed the pun B.Coms.—Be-Kams before the Sapru Committee which was highly unfair. We collected statistics of employment of the B.Coms. of the Allahabad University and without giving the details here I must say that most of them were found employed and a quite a fair number were absorbed in business houses. Universities must also provide all facilities for research work in Commercial and Economic subjects. The Government should take University teachers into their confidence and give them problems to work upon.

I would now appeal to our business magnets to co-operate with the educationists in their task and not unnecessarily accuse them that they do not seek the co-operation of the businessmen. In my experience of commercial education in these provinces from the very beginning, I have observed that practical businessmen have always served on the committees of the Board and the Universities. We have always been anxious to get their advice and guidance even when they have been reluctant to spare time out of their busy hours. In the University of Allahabad we revised our courses in the light of their criticisms and suggestions and we have several of them on our faculty. They must give a fair chance to our youths. They should regard the training of the youth as a social service. It is only through their co-operation that some tangible results can be achieved. In the case of foreign enterprises working in India we must make it compulsory for them by legislation to train our men. Is it not ridiculous and disgraceful that after about one hundred and fifty years' working of the foreign exchange banks in India, hardly any Indians are employed by these banks in positions of trust and responsibility?

In the end I would reiterate that we must make concentrated efforts to improve the man by giving him a sound education. This, together with a forward economic policy of the State, will bring about peace, prosperity and position to this unfortunate land. Education must be encouraged in all stages—Primary, Secondary and University.

THE GENESIS OF URDU

By DR. MD. HAFIZ SYED, M.A., Ph.D., D.Litt.

The birth of the Urdu Language may be rightly traced to the advent of the Muslims in India as traders and conquerors, and their subsequent intercourse with the natives of the soil.

It is historically proved that the Muslims came to Southern India as traders and settled there not long after the birth of Islam. Since then their influence increased.¹

The Arabs and the Jews settled down in Kalyan, Sopara, Malabar and Ceylon, and in Southern India where the Greeks and the Romans had large business; their ships were moored and manned by the Arabs.

The advent of the Muslims dates from the seventh century. From that time to the 13th century A.D. their relations were more or less commercial, and they were welcomed as merchants by the Hindu Rajas who later on gave them high posts, and raised some of them to the ranks of the Commander of the Fleet.

Some of them were appointed as ambassadors, excise officers, and captains of the army. They were permitted to build mosques and houses for their priests; they were even helped by the Rajas in their efforts to convert the people to Islam.

Their influence was not restricted to Southern India alone; they had the same kind of relations with the Hindus of the North.

The Arabs took possession of Sind at the beginning of the eighth century, but excepting Multan and Sind, they did not conquer any other part till 300 years afterwards.

¹ The Hindustani, July, 1931, p. 356.

Many years after the famous invasions of Mahmûd Ghazni, when his grandson Maudûd ascended the throne, Afghanistan and some parts of India alone were in the possession of the Subtagin dynasty. Masûd's royal retinue, officials, and courtiers, who were living in Central Asia, were completely routed by the Saljuqs and consequently migrated to India where they settled down. The close contact that existed between the Muslims and the Hindus from that time onwards brought about a change in the Hindi Language which paved the way for the growth of Urdu. The successive generations of the Muslims who had settled down in India as traders, and conquerors, spoke this language.

We have no literary documents of this seventh and eighth-century language, beyond a few Urdu maxims, and occasional remarks of some of the saints and mystics which are still found in the mystical and historical treatises. They give us an idea of the growth of Urdu in the successive Muslim reigns.

When the Muslims came and settled in India they brought with them their language and culture which they could not spread among the conquered people wholesale, nor were the natives of the land able to adopt them fully. The Muslims spoke Persian as a rule but it was not pure Persian, as hundreds of Arabic words had found their way into it. As a result of long intercourse, the words from the two languages, *i.e.*, Persian and Braj, were gradually intermixed, thus giving rise to the birth of a new language called Urdû.

The word Urdu in the sense of a camp or camping ground came to India with Babur in 932-937 A.H.² The historians of the Mughal Courts used this word to mean the royal army or the royal camp.³

The current language of that part of the country where the Muslim rule was first established was *Braj*, which though it originated in the Doab, had spread all over the country from Bihar to Nilab, and Nilab to Malwa. Through Muslim influence Braj Bhāshā began to assimilate Arabic and Persian words which wrought a considerable change in the language—a change which was responsible for the birth and gradual development of a new language. There are sharp differences of opinion regarding the change in the Braj Bhāshā

² *Babur Nāma*, p. 413.

³ *Tabaqāt Akbarī*, pp. 185, 313, 315, 337.

and the origin of the Urdû language. Sir Sayyed Ahmad Khān⁴ says "that up to the time of Shāhjahān (1037-1069), no change was effected in Braj Bhāshā. In the newly-populated city of Shahjahanabad the royal army which spoke Persian, and the Indian people, who spoke Braj Bhāshā, came into close contact with them. This resulted first in the intermixture, and then in the complete fusion, of the two languages. This new language came to be known as Urdū, or the camp language."⁵

As against this Mir Aman Dehlavī⁶ holds that Urdū originated in the time of Akbar in 963—1014 A.H. Nassakh⁶ differs entirely from both these views, and says that Urdu was born after the conquest of Muhammad Sam (569—602) and before the ascension of Muhammad Tughluq to the throne in 725—752 A.H.

These are the views of some of the Indian writers. Now let us see what some of the European Orientalists have to say on this subject.

Beames⁷ in his *Comparative Grammar of the Modern Aryan Language of India* says that after the conquest of India by the Muslims the Hindus for a long time preserved Hindi from the influx of foreign words and so did the Muslims in regard to Persian. They did not intermingle Persian words with Hindi. In the reign of Akbar, when Raja Todar Mal introduced a new Revenue system, the Hindus were compelled to learn Persian. From that time commenced the fusion of Persian and Hindi words, which paved the way for the formation and development of a new language.

John Gilchrist thinks that the origin and rise of Urdu may be traced to the time when Taimur invaded India in 771 and 807 A.H.⁸

Colebrooke is of opinion that from the last quarter of the fifth century A.D., Brij Bhāshā began to undergo a change; owing to the influx of foreign words and the gradual transformation assumed the form of a new language.⁹

⁴ *Asārus-Sandūdīd*, Third part, pp. 104, 105.

⁵ *Bāgh-o-Bahār*, p. 7.

⁶ *Risalai Tahqīq-i-zabān*, pp. 3, 4.

⁷ Beames' *Grammar*, p. 15.

⁸ Gilchrist's *Hindustani Philology*.

⁹ Colebrooke's *Asiatic Researches*, Vol. VII. p. 220.

From these quotations one cannot arrive at a definite and reliable conclusion regarding the origin of Urdu, because these writers have completely overlooked the rise and development of Urdu in the Deccan. Their inferences are incomplete, in fact one-sided. The history of the development of the Urdu language and literature in the Deccan is still shrouded in darkness, as no systematic attempt has yet been made to survey the whole field of literature produced from the earliest time up to the present day. In the light of modern researches and the discovery of a large number of MSS. in the Deccan, it appears that in several centuries there lived in the Deccan many illustrious poets whose poetical works were up to now unknown to the world.¹⁰

Sir George Grierson in his article on Indo-Aryan Vernaculars (page 51) says, "From Delhi Urdu was carried all over India by the Mughal armies and it first received literary cultivation in the sixteenth century in Southern India."

Stages of its Development.

There were several distinct stages in the evolution of Urdu which are worth stating:—

1. When the local Hindi language spoken in the North of India came in contact with the Arabic, Persian and Turkish languages as variously spoken by the Muslim civil and military officials of the time along with the rank and file, it naturally and unconsciously imbibed and assimilated a large number of words from them. The poetical works of Sûr Dâs, Kabîr and others, furnish examples of this stage of development. In the following lines quoted at random from Sûr Dâs we find three Arabic and Persian words, *gharib*, *dîn* and *Jahâz* :—

Sadhū mīlan au Harī bhajan daya dīn upkār,
Merā man aṇṭ kahā sukh pāve,
Jaise ur Jahāj ko panchī phir Jahāj par āve.

Muslim conquerors and traders brought with them a number of new articles of merchandise for daily use. Their names, mostly drawn from the Arabic and Persian languages, were borrowed and adopted by the people; for instance, such words as *labada* (1), *kurta* (2), *chugha* (3), *pajama* (4), *rumal* (5), *shawl* (6),—names of the articles of dress; and

chapati (7), polao (8), murabba (9), achar (10), faluda (11), gulab (12), reikabi (13), Sayni (14),—names of some eatables and drinkables and the vessels for their use; miscellaneous words such as Nayfa (15), banduq (16), mazdur (17), dallal (18), vakil (19), sarraf (20), chadar (21), kursi (22), parda (23) and many more words were brought to India through the Muslim influence.

2. As the Muslims were familiar only with the Arabic and Persian script, they found it easier to commit their thoughts to writings in that script in preference to Devanāgrī character just as Europeans often prefer the Latin script and write oriental texts in it for their own convenience.

This was a further stage of the development of the language when it became distinguished from the current local vernaculars, in so far as it was written in the Persian script instead of the Devanāgrī. The Muslim writers gave the language a new form by writing it in the Persian character.

3. For a long time this mixed form of Muslim and Hindū languages was used as a vehicle of thought for conveying a kind of religious and mystical ideas by the Muslim saints who were strenuously trying to propagate their religious doctrines among the masses. Some of the earliest prose and poetical books were written under purely religious influence; for instance, *Mirājul-Ashqain*,¹¹ the *Dīvan* of Shāh'Alī Muḥammad Jīva¹² and the *Khush Tarang*.¹³

¹¹ *Mirājul-Ashiqain* is the name of a book in Deccani prose, supposed to be the first of its kind. It was written by Sayyid Muḥammad Husayni, popularly known as Khwaja Banda Navaz, one of the most famous Muslim saints of India, who migrated from Delhi and settled down in Gulbarga in the Nizam's dominion, where annual *Urs* (religious fair) is still held in his honour. He was born in 1318 A.D. and died in 1423 A.D. at the unusually advanced age of 105.

¹² Shah Alī Jiv was the son of Shah Ibrahim Jānnullah. Born in Ahmadabad (Gujrat), he was one of the greatest Sufi saints of his time and was universally respected for his piety and poetical gifts. He died in the year 1565 A.D. He has left behind him a *Dīvan* (Collection of poetical works) which was edited and rearranged by his grandson Sayyid Ibrahim. Only three copies of this MS. are available. I have in my possession one of them. Almost all his poems are written on purely mystical themes.

¹³ Sheikh Khub Muḥammad was a disciple of Sheikh Kamal Muḥammad Sīstānī. He belonged to the Chishtiya school of Islamic mysticism, and is considered to be a saint of a high order. He collected all the mystic sayings and utterances of his spiritual teacher in his Urdu work called "*Khush Tarang*," which was compiled in 1578 A.D. The language and the style of this book is not sufficiently clear. The compiler wrote a commentary on it in Persian, which was completed in 1592 A.D. and is entitled as *Amcāji Khubī*.

Khub Muḥammad died in 1614 A.D. and was buried in the city of Ahmadabad (Gujrat). Two copies of this MS. are preserved in the India Office Library (Persian MSS. Nos. 1055 and 460).

4. With the flux of time several other distinctive features of the newly-growing language were developed.

The Muslim writers gradually began to discard local imagery, indigenous ideas of natural scenery and instead embodied purely Islamic ideals, and introduced foreign scenery, and similes and metaphors mostly borrowed from Persian and Arabic literature.

Persian prosody was introduced into the language without the least change.

The metrical forms of Qasida, Ghazal, Masnavi, Quatrains, etc., in fact, words, phrases, even the very ideas were borrowed from Persian poetry. The Urdu poets sang the same note in almost the same tune and made use of the same set phrases, figures of speech, and invariably employed the same set metres.

Later on Urdu grammar was also developed on the model of Persian grammar.

At the present time most of the scientific and technical terms are derived from Arabic and Persian sources. In a modern piece of prose or poetry Persian and Arabic words preponderate. There is a new tendency among the modern writers to eliminate Hindi words as much as possible. Thus the large proportion of Hindi words has been replaced by 70 per cent Arabic and Persian words.

PROBLEMS OF OLD AGE AND DEATH

By DR. SHRI RANJAN, D.Sc.

Probably no other branch of science has commanded so much attention of peoples of all ages as the one dealing with the problem of duration of life. Till recently it was generally believed that senescence or growing old was a necessary prelude to natural death. This has now been shown to be not absolutely true and immortality has been proved in many animalcules. Paramœcium is one such lowly organised one-celled animal. This organism apart from the usual way of pairing can multiply by a process of simple division or fission, *i.e.*, a particular

individual after growing to a certain size divides simply into two like individuals which begin life afresh. These in their turn repeat the process of division so that death does not occur in their life cycle. Woodruff cultivated *Paramecium* for more than 13 years; in this culture only division by fission took place and no pairing was allowed. The *Paramecia* reached 8500 generations during this time without any natural death occurring. One might therefore say that the animalcule is immortal.

This kind of multiplication by fission is also found in sponges, flatworms and many other multicellular animals. *Planeria* is a flatworm which lives in ponds. It, after attaining the full size, shows a constriction towards the posterior end of the body. The constricted part finally breaks off. The parent then forms a new tail and a new head is formed by the offspring.

In plants also this kind of cellular immortality is of very common occurrence. In fact young cells in active division are always to be found in the oldest trees. A common method of propagating trees is by grafting. A grafted twig shows vigorous growth and develops into a tree. This again is a proof of immortality of tissues. For aught we know the citron, the guava or the mango may be but a developed branch of the first bygone tree.

In higher multicellular animals there is a different mode reproduction. The new individual starts life by the union of two peculiar cells of extraordinary potentialities—the germ cells. In bisexual individuals, e.g., man, the female germ cells called ova is borne in the female and the male germ cells, the sperms, in the male. By the union of the two life starts. The fertilized egg after a certain period divides into two daughter cells. These again divide and subdivide. After a few divisions some of the cells get distinguished so that these form the germ cells and the others develop into a body. The body cells sooner or later reach old age and eventually die. So also those germ cells that are imprisoned in that body. But the germ cells that manage to escape and meet the ova form a new individual and continue their existence in the new body. Thus it is seen that though the body dies, the germ cells continue to live.

The brilliant researches of Loeb have however shown that fertilization is not always necessary for the active development of the egg. In

the case of the frog the rôle of the father may be played by the needle. An unfertilized egg was gently pricked by a needle and the initiation of development started. The adult frog remained alive for one year. Again Loeb studied the egg in its chemical aspect. Normally the unfertilized eggs of sea urchins die comparatively early if kept in sea water but if they are treated with certain chemicals, like butric acid, they will develop into adult organisms.

These results clearly show a physico-chemical basis of life and it is within the power of human intelligence to control this physico-chemical basis. According to Loeb there are two processes going on simultaneously in a cell—(1) the process leading to death and disintegration and (2) the process leading to cell-division. If by any means the process leading to death could be stayed, the process leading to cell-division could go on indefinitely. As is known death and disintegration are brought about by the agency of enzyme-action; so anything that clogs this action will prolong life. Potassium cyanide in one such substance. Loeb showed that very minute quantities of this substance in sea water lengthened the life of the egg of sea-urchins to more than three times its normal duration.

It is not only germ cells that can live indefinitely but in certain cases body cells can also be made to live and grow artificially. Burrows successfully cultivated outside the body the cells of the central nervous system and the heart of the chick-embryo by keeping them in lymph or blood plasma. He showed that almost all the adult and embryonic tissues of the dog, cat and man could be cultivated like this. In one case Cassels has kept a tissue of the heart muscle of a chick growing in a state of active life for 18 years which is far longer than the life of the chick. The tissue is as much alive today as 18 years ago and it really appears as though he will be able to keep it alive indefinitely.

There are also indubitable proofs that longevity of an individual is based upon the genetic constitution of the individual—in short on heredity. There are any number of annual plants that finish their life-cycle from seed to flower within a few months. The age of the normal man may be put down as being less than 100. It has been shown that longevity runs in families, viz., some are short-lived probably dying within 50 and other families are as a general rule longer-lived.

Pearl, working on the fruitfly *Drosophila*, has shown that the long-winged variety is generally longer-lived than the vestigial-winged. From his study of longevity he formulates the following schema :

$A \longrightarrow$		$B \longrightarrow C$
External sources of energy.	The organism possessing the inherent vitality which has the power of converting $A \longrightarrow C$	The product (a) heat (b) work (c) living matter (d) waste

One may conclude from this that a particular organism with a definite type of genes—or inheritance—will react to external energy in a definite way to produce C and thus it will maintain a definite longevity. Moreover from his study of inherent vitality amongst plants leads him to the important generalisation that the faster the rate of growth the shorter is the duration of life. In other words the faster an organism lives the sooner it dies.

So far it has been seen that cells are not necessarily mortal but can be made to live indefinitely by suitable treatment. This is however not yet possible to accomplish with highly evolved organisms such as man. The cause of death therefore does not lie in the individual cells but in the complexity of organisation. Casell has demonstrated that it is possible to keep tissues alive almost indefinitely by merely keeping it free from its own wastes which are poisonous to it and by supplying it with nutrition it needs. Thus in order to live longer an organism should keep the blood and tissues of its body free from waste products and all other poisons. Death of cells whether in the body or outside it is always due to poisoning. Mechnikoff showed that senescence is brought about by accumulation of poisonous wastes in the intestine. Another explanation of senescence is that protoplasm, or the living basis of life, is composed of chemical materials in a colloidal state. Chemists have shown that colloids age and grow inactive when they are kept for a long time. Leenuire has shown that senescence and death result from the inevitable progressive changes involving gradual flocculation and precipitation of protoplasmic colloids. Senescence begins when growth and cell proliferation with the formation of new colloids cease or fall

below a certain level. Rejuvenescence is possible only through renewed cell-proliferation and production of new colloids. Unicellular organisms, most multicellular plants, certain tissue cultures and germ plasm of animals are regarded as immortal because proliferation and production of new colloids can continue indefinitely.

The work of Steinach, Voronoff and others on rejuvenescence of the body is beyond the scope of this essay. But, speaking briefly, the experiments are based upon gratifying young tests (Voronoff) or causing ligature of the spermatic ducts (Steinach). A careful scrutiny of the data shows that the effect is only of a stimulative character, causing acceleration of the metabolism consequent upon the stimulation of several endocrine organs and shows no increase in the duration of life.

Judging from the present-day knowledge it can safely be concluded that man is today nearer to the understanding of the physico-chemical machinery of protoplasm than ever before. The future investigations will be based on the problems of regeneration of the colloids through the physico-chemical means and on the development of better means of elimination of waste products of metabolism. Then will it be possible to say that death is not a necessary corollary to life.

AMUSEMENT FROM MATHEMATICS AND MATHEMATICIANS

By DR. B. N. PRASAD, D.Sc., Ph.D.

In this article I propose to give some tit-bits pertaining to Mathematics and Mathematicians.

(I)

The Mathematician and the Philosopher.

Leonhard Euler (1707—1783) has been one of the greatest mathematicians the world has produced. He was successively the Court Mathematician of Frederick the Great at Berlin and of Catherine II at St. Petersburg. At the invitation of the Empress, the

French philosopher Denis Diderot once paid a visit to the Russian Court where he conversed very freely and gave the younger members of the Court circle a good deal of lively atheism. This was not liked by some of the elderly Councillors who suggested to the Empress that it was desirable to check the expositions of this doctrine. The Empress being unwilling to control directly her guest's tongue, a plot was contrived. Diderot was told that a learned mathematician was in possession of an algebraical demonstration of the existence of God and he was willing to give it to Diderot before all the Court, if he would like to hear it. Diderot consented. Next day, when the Court was full, Euler advanced towards Diderot and in a tone of perfect conviction said gravely: "Monsieur, $\frac{a+b''}{''} = x$, donc Dieu existe; répondez !"¹ Diderot who was quite innocent of Mathematics, looked embarrassed and perplexed, while peals of laughter rose from all sides. He asked permission to return to France at once, which was readily granted.



Leonhard Euler

(II)

An Epitaph.

Diophantus was one of the most fertile mathematicians of the second Alexandrian School. He is celebrated for his writings on Algebra, and flourished about 250 A. D. The following epitaph gives his age:—

Diophantus passed $\frac{1}{6}$ of his life in childhood, $\frac{1}{12}$ in youth, and $\frac{1}{7}$ more as a bachelor; five years after his marriage was born a son who died four years before his father, at half of his father's age.

Find out the age of Diophantus.

¹ " Sir, since $\frac{a+b''}{''} = x$, therefore God exists, reply."

(III)

A Prize Problem.

I describe a most important problem, a problem for the solution of which a prize of a lakh of gold marks has been announced and which has been baffling the attempts of mathematicians for nearly last 300 years. We know:

$$3^2 + 4^2 = 5^2; 12^2 + 5^2 = 13^2 \text{ etc.}$$

that is to say, it is possible to find integral values of X, Y, Z, such that $X^2 + Y^2 = Z^2$, or in other words, it is possible to partition a square into two squares. This is the well-known Pythagorean theorem. The question arises if it is still possible to find integral values of X, Y, Z, so that

$$x^n + y^n = z^n; x^4 + y^4 = z^4; x^5 + y^5 = z^5,$$

or, in a generalized form

$$x^n + y^n = z^n,$$

when n is an integer greater than 2. This is the famous problem known as "Fermat's last theorem."

Pierre de Fermat (1601—1665) was a French mathematician of exceptional powers and a profound scholar in nearly all branches of learning. Educated at home, Fermat was not a mathematician by profession. He was a councillor for the parliament at Toulouse and devoted his leisure time to the study of Mathematics with irresistible passion. Being constitutionally of a modest and retiring nature he never cared to publish his papers. He was in the habit of writing down the results of his researches on the margins of books which he had read, unaccompanied by any proofs. On one of the pages of Diophantus' Arithmetic, Fermat wrote in Latin the following



Pierre de Fermat

marginal note, the translation of which runs as follows :—

"It is impossible to partition a cube into two cubes, or a biquadrate into two biquadrates, or generally any power higher than a square into

two powers of like degree. I have discovered a truly wonderful proof of this, which however this margin is too narrow to hold."

Since then, the greatest mathematicians the world has produced within the last 300 years, have been spending their best energies *to prove or disprove* Fermat's theorem, but so far it has defied their attempts. How unfortunate it is that we lost Fermat's wonderful proof of his wonderful theorem on account of such a trivial cause as the lack of space on the margin of the page !

In 1908 the sensational announcement was made that a prize of 100,000 marks would be awarded for the complete solution of Fermat's problem. The fund for this prize, which is the largest ever offered in Mathematics, was bequeathed by a German Mathematician Dr. F. P. Wolfskehl (1856—1906) to the "Königliche Gesellschaft der Wissenschaften in Göttingen" for this purpose. The competition of this big prize will remain open for about 70 years more, the last date being September 13, 2007.

(IV)

A Queer Prediction.

Hieronimo Cardano (1501—1576) was a great mathematician of Italy. His name, though wrongly as discovered now, is associated with the method of solving general cubic equations. He has been described to be a strange mixture of genius, folly, self-conceit and mysticism. He also professed astrology which perhaps brought him more income than the profession of teaching mathematics. It is said that one day in his usual boastings he predicted the hour and minute of his own death. Sensational as the news was it at once spread out and people began to gather from far and wide to see how Cardano would die at that particular moment. The predicted day and hour had come, but Cardano was feeling quite hale and hearty; there was absolutely no sign of approaching death, while crowd of spectators was gathering thick and fast. It is said that when that particular moment came, Cardano not finding any trace of coming death, felt so much of apprehension and agony that he actually died at that particular moment thereby fulfilling his own prophecy.

(V)

A Prodigy.

Sir William Rowan Hamilton (1805—1865) has been the greatest mathematician of Ireland. He is the founder of the important branch of Mathematics known as Quaternions. Hamilton was a mathematician, a poet and a philosopher all combined. Wordsworth and Coleridge were among his very intimate friends and between these three passed a highly interesting correspondence, dealing with philosophy, science, and literature.



W. R. Hamilton

As a child Hamilton was a prodigy. At the age of three he was a good reader of English and considerably advanced in Arithmetic, at four a good geographer; at five able to read and translate Latin, Greek, and Hebrew, and used to recite Dryden, Collins, Milton and Homer. At the age of eight he was a reader of Italian and French and used to give vent to his feelings in extemporized Latin. Before he was ten he had formed an intimate acquaintance with Sanscrit and had acquired a good grounding in Persian, Arabic, Chaldee, Syriac and sundry Indian dialects. It is said that at the age of 13 he knew more than thirteen languages. Whilst yet an undergraduate, he was appointed to the chair in Astronomy at Dublin.

(VI)

Something from Nothing.

Guido Grandi was an Italian philosopher. He gave the following proof in support of the possibility of the creation of the world from nothing :—

$$\begin{aligned}
 &0 \\
 &= 0 + 0 + 0 + 0 + \dots \\
 &= (1 - 1) + (1 - 1) + (1 - 1) + (1 - 1) + \dots \\
 &= 1 - 1 + 1 - 1 + 1 - 1 + 1 - 1 + \dots \\
 &= 1 - (1 - 1) - (1 - 1) - (1 - 1) - \dots \\
 &= 1 - 0 - 0 - \dots \\
 &= 1.
 \end{aligned}$$

As one can get unity from Zero, so the world was created from nothing !

THE UNIVERSITIES OF INDIA AND THE NEED OF A SCALE OF VALUES

By MR. S. C. DEB, M.A.

The utterances of publicists at recent University Convocations have made one point clear, that Indian thinkers and men of affairs have at long last come to an agreement regarding one point—the miserable ineptness of the present-day Indian educational system, and the necessity of an immediate and radical change in its workings. This is not to say that they are agreed as to the manner of the change, or even as to the degree in which they feel that change is necessary. An ironical observer will be reminded of Lytton Strachey's quiet observation regarding a somewhat similar juncture in the history of Education in England: "Reform was in the air—political, social, religious; there was even a feeling abroad that our great public schools were not quite all that they should be, and that some change or other—no one precisely knew what—but some change in the system of their management was highly deniable."

The statements made at our Convocation meetings, have not been quite so nebulous as to deserve such criticism. The addresses that we have recently heard or read in the columns of the daily papers have been more outspoken and in some cases more defined in their position. But it would seem that these utterances could be divided into two groups: (1) those which content themselves with saying that the Universities have been responsible for middle-class unemployment and that they have been the homes of sham or pseudo-culture, which is by its very nature, hardly anything more than a surface-veneer; (2) those which acknowledge that the Universities have done good and uniformly valuable work, but have been either handicapped from doing all that they should have been able to because of want of resources, or have been responsible for a false scale of values, and thus led astray the minds of their *alumni*.

I have nothing to say about the first group of critics except that I feel mere criticism or mere accusation to be profitless. I do not mean that the Universities are beyond the pale of criticism, they certainly are not. No teacher who has devoted any thought to the problem of the Universities in India can be satisfied with the present state of affairs,

or assert that the Universities are doing all that in a free country and in a normal state of affairs would be expected of them. But the major sin which is to-day being laid at the door of the Universities—middle-class unemployment—is certainly not of their making. Unemployment is obviously due to the fact that one country suffers from the handicap of over-population and an excessively high birth-rate, from a state of economic adjustment which has meant the steady impoverishment of the land, from the fact that certain avenues of employment are closed to the children of the soil. The politician, before he accuses the Universities, should attempt to educate public opinion regarding these shortcomings, and thus create openings for the steadily growing middle-class of our country. But this part of the question, as I have said before is one that I am not going to deal with; in the words that have fallen from the lips of my friend and colleague, Prof. Amaranatha Jha, we shall all find a sufficiently thorough discussion of this aspect of the matter.

It is with the second group of criticisms that I am really concerned. Let me state frankly what I feel: with this group of critics I feel that I am in largely in accord myself. The fact that for over a dozen years I have been teaching in one of the best known Universities of India does not in any way clash with this feeling. We in the Universities, as also elsewhere, know that we are far removed from perfection, but in our humble way, we also claim to be idealists who must strive after perfection. And when one knows, as all teachers of the Universities of India know to their cost, how far indeed from “autonomy” we are, I feel that it is no small honour to our profession that we should yet remain idealists at all.

It is regarding a point usually not brought out by the second group of critics that I desire to speak today. These critics have not merely been cordial and sympathetic in their attitude, they have often been rightly and severely critical of what they think are our faults. I do not at all want to criticise their point of view, I only desire to point out in all friendliness, and as a humble fellow-worker, what are some of the difficulties implicit in the new position that they would have us to adopt. Let me take a concrete example. His Highness the Nawab of Bhopal, delivering the Convocation address (1935) at the University of Allahabad, took the opportunity of pointing out to his audience that

much though he admired the work of the University—of which he is an *alumnus*—he could not see eye to eye with the educational policy of the University which made an Indian student “ know more about Chaucer and Tennyson than about Kalidas and Ghalib ” . . . ; “ all this,” he went on to add, “ must be changed ” before our Universities could claim to have a national value at all. Very true words these. And the attitude of the speaker—so measured, so cordial and sincere—gave to his words a weight and dignity which mere carping criticism can never have . . . This is precisely what all sincere lovers of our country and culture would like to see established. And yet it seems to me there is a certain amount of haziness and confusion implicit in this position. It is, I feel, now generally accepted that an Indian student ought to know something about his own culture and literature; and the exclusive devotion of our time and attention to Chaucer and Tennyson is already beginning to sound quite absurd to the ears of some of our educationists.

But if we are not going to devote our time exclusively to Chaucer and Tennyson, and formulate our ideas about their merits and the values of poetry in the pages of Bradley or Skeat or Stopford Brooke and the tribe of English critics, how are we to read our own poets simultaneously with the English, and by what standards must we judge our own writers, “ our Kalidas and Ghalib ”? And is there not an inherent weakness in the position of our speaker, who would couple “ Kalidas and Ghalib ” together? How are these two writers, separated as they are by more than ten centuries, belonging to two races and two cultures, and writing in languages as different as Latin and Dutch, how is it possible that these writers should be read and appreciated, evidently in the languages that they respectively used, by the self-same student? And if, as the lecturer has tacitly accepted, he is to do this over and above his having to acquire a working knowledge of English—albeit of English language, not of English literature—are not we gaily moving forward to a dangerous situation? It not this as the cynical Teufelschrock observed, the luxury of being hung in silk, instead of in commonplace hemp?

Leaving apart this aspect of the question, which I consider to be of primary importance, there is another to which I should like to direct the attention of our critics. It is the formulation of a “ scale of values,” by which he is to judge and appreciate the merits of the various branches

of world-literature—Western and Eastern—with which he is bound to come in contact, or make his personal estimate of the thought of various countries. What shall be this “scale of values,” and how are we to help our students in framing one for their own use?

Let me detain you for a few minutes in telling those of you who are younger than I, something about our own mental background, its growth and development. I am speaking of the years of the war. Let me remind you that I am speaking of the old Allahabad University which had at that time sole jurisdiction over an area covering almost a third of the total expanse of the Indian Empire! It prescribed the standards of education and directly or indirectly created the “scale of values” by which the mind of the people of that generation was swayed. As I shall take occasion to point out this scale was not uniformly accepted, there were variations and clearly marked ones at that, obtaining amongst the men whose business it was to formulate such a scale. For instance in the Government Colleges, where the I.E.S. people then reigned in undisturbed content, the attitude that was mostly commonly in evidence was largely what to-day would be called the ‘Victorian point of view,’ the ideal held out was that of the English ‘gentleman’—as portrayed by Tennyson in his, ‘*Arthurian*’! The core of this attitude may be summed up in the following words: Forget your own past, it was a shameful affair; acknowledge the inherent superiority of the white man; accept his guidance without question or demur; and strive to reach the ideal imposed in turn on him by his teachers: the worship of good form and the distrust of intellectuality. A special feature—doubtless in recognition of the peculiar inhibitions of the Indian mind—was the complete blotting out of all reference to spiritual and religious values on one hand, to politics on the other. To think and speak of religion when one was a member of the I.E.S. was as much out of place as at a Disarmament Conference; to speak of politics was to savour of original sin.

A second group of foreign educationists, the missionaries, at that time a power in the land, tried to bring about a synthesis between the ideal of the English “gentleman”, à Tennyson, and the spirit of the gospels, and created a peculiar eidolon of their own, which they set up for the admiration and emulation of Indian students. As for the few institutions that were purely Indian, with the exception of one or two

which were forced to move away into the outer darkness (much as the famous centres at Shanti-Niketan or at Hardwar), the rest were content to adopt an uneasily poised eclecticism as their ideal.

As if the young seeker after truth were not already sufficiently non-plussed by the problem facing him, *viz.*, how to synthesise these widely disparate elements, there had recently come into the field another group of writers and thinkers, who proclaimed their own gospel and cried out their own slogans. These leaders were the ones who took the world of Indian youth by storm: their names became the object of an almost ecstatic worship. Mrs. Besant, Aravinda Ghosh, and Lokmanya Tilak, then leaders, got an entirely different bearing from the large majority of Indian students between the years 1910—1920. To mention only two of them, is enough for my purpose. When Tilak's "Gitarahasya" was translated into Hindi in 1916, we felt as if a new light had been revealed. To the Hindu youth of these Provinces, this book, with its insistence on an energetic Hinduism, its curt-and-brusque rejection of the "lackadaisical gentility" and "white-man superiority" of the I.E.S., its insistence on first principles, and its refusal of expediency, all this came in the nature of a revelation. Not everybody read Tilak's book, or Mrs. Besant's translation of the Gita, which had appeared many years earlier; but a small and honourable minority, to quote Thomas Hardy's words, did; and the book became the subject of protracted discussion. I speak from personal recollection and experience when I say that in the years 1917—20, few books were able to make so deep an impression on our minds. The brand of "nationalism" advocated by Mrs. Besant and Tilak was not purely a political matter, it desired to overspread over the whole surface of the experience of Indian youth, and to a large extent it succeeded.

Here then was a parlous state of affairs. Middle-class Victorianism, formed of its moral and religious aspects; missionary prestidigitation attempting to fuse the Kingdom of Heaven and the British Empire into one unit, "one entire and perfect chrysolite," and enunciate a body of ideals that would hold true in both worlds; retrogressive or conservative glorification of the past: eclecticism and the rising tide of new nationalism! Here was truly such a maze presented to the young Indian student, that it is absolutely no shame to him that he should not have been able to frame his own "scale of values."

This was how things stood during the fateful years 1910—1920. The War which levelled so many things and forced men to remould things, 'not always nearer to the heart's desire,' did succeed in knocking down quite a few of the false idols that we had worshipped unquestioningly. It forced, first of all, the generation preceding ours to give up their pontificality, their constant repetition of the Victorian liberal's formula: "this is the best of all possible worlds": it made the younger generation of 1910—my generation—realise with a shock that our elders had been unconsciously humbugging themselves; it made European civilisation to which we had looked as if it was a second Purgatory, take the appearance of one of the visions of the Inferno. It forced the Westernists—to use a phrase familiar to every reader of Tolstoy and Turgeniev—to realise how grossly absurd their valuation of their own culture had been; and on how slender a basis had they accepted Western theories. The change of front in such great and representative Indians as C. R. Das and Jawahar Lal Nehru can only be fully understood when we remember the disillusionment through which they had to pass.

Since the close of the War things have moved on very fast in India. But there is yet nothing before us to make us feel that the youth of India is today any more competent to frame a 'scale of values' than we had been in our own turn, a generation earlier. Two or three notions however force themselves on to all those who have to spend their time in the midst of the Indian youth of today.

1. The extreme bitterness and dejection which often marks Indian youth; its despair, and unwillingness to believe in any such discussions as a 'scale of values.' This distress is not to be misprised or disdained: "it is," as I heard Rabindranath Tagore say to a colleague of mine in my presence, "welcome, it shows that Indian youth is not dead."

2. The coming of a new mood, not merely the old glorification of the past, but a determination to work for the future, observable in another section of Indian youth; to work in the field of politics and religion, of science and of art. This mood is often allied to a certain narrow and strident nationalism; but it is a nationalism striving for a full and independent future.

3. The deliberate acceptance of theories which are entirely non-Indian in outlook, and stand for an entirely different "scale of values":

Socialism, Communism, and its concomitants, a faith in autocracy and dictatorship.

It is in this state of affairs that the teachers and students of the Universities of our provinces, and surely also of other parts of India, find themselves today. What are we going to do, what ideals are we going to formulate, how are we going to construct our new scale of values?

A distinguished modern poet and critic, T. S. Eliot, startled the English-speaking world some years ago by publicly declaring that in this world of flux he was going to direct himself by three 'norms': (1) monarchism in politics, (2) classicism in literature, and (3) Anglo-Catholicism in religion. Taking this as our text what must we of the Universities of India uphold today for the acceptance of our students, the most valuable of India's assets, her youth? Will it be sufficient if we continue to say, as our teachers did before us, "Our norms are: (1) Opportunism and Sycophancy in politics, (2) Victorianism in literature, (3) Indifferentism in religion"? or following the modern politician announce that our watchwords will be "(1) Communism in Politics, (2) Sectionalism in literature, and (3) Outward orthodoxy in the world of religion"?

Whatever the scale of values that comes to the forefront, and I claim that we of the Universities must take our stand, and attempt to formulate one for ourselves; one thing is I am afraid Eclecticism, and mere imitation of Occidental notions is gone and done for. We shall have to construct one for ourselves, and here it will be to our past heritage, not to the indeterminate chaos of "our Kalidas and Ghalib" but to our classical literatures that we will have perforce to turn. It is only in such literatures as Sanskrit and Persian that we shall find the material to enable us to build a shrine for ourselves anew.

Our duty at the Universities is twofold: (1) We must arrange to include in our completely secular educational scheme religion and religious teaching as an indispensable element, and insist on every Indian student coming in contact with the central truths of his own religion; and emphasise the value of a philosophical training for those of us at least who have not had the benefit of classical studies; and (2) *at a later stage*, to widen our student's outlook by making it possible for him to make himself familiar with the main currents of modern European, as

opposed to English literature and thought. I hope I shall not be considered guilty of mere paradoxicality when I say that in order that we might be able to stand on our own feet, and judge Indian and European thought and culture by referring to our scale of values, it is necessary for us to absorb more deeply the spiritual inheritance that we have so long foolishly spurned; and to render it more elastic and more tolerant by getting our minds freed of the dangers of an exclusively English outlook when we seek contact with the Occident. This will not mean that I advocate that every student should read Persian or Sanskrit, and French or German in addition to English; I have been too long a pedagogue myself to put forward so monstrous a proposal. But for "the small and honourable minority," such an attitude may not be impossible; three languages : a classical language, English, and a modern European tongue. All these are not to be read as literatures, only two of them need be done from the point of view of literature. It may then be possible for the generation which will direct Indian affairs round about 1950 to move on to a classification of its own ideas, to formulate its own point of view with regard to the basic problems of life; and to take its share in the direction of international affairs. Above all, this will do away with mere eclecticism and indifferentism: and that is itself a very great thing. I am reminded at this moment of the great words that the younger Dumas addressed to his young compatriots on the morning after the defeat of Sedan: "Prends garde, tu traverses des temps difficiles. . . Tu viens de payer cher, elles ne sont pas même encore toutes payées, tes fautes d'autrefois. Il ne s'agit plus d'être spirituel, léger, libertin, railleur, sceptique et folâtre; en voilà assez pour quelque Temps an moins. Le Dieu, la nature, le travail, le mariage, l'amour, l'enfant, tout cela est sérieux, très sérieux, et se dresse devant toi. Il faut que tout cela vive on que tu meures." It is in some such spirit that we, who have also not infrequently been "spirituel, léger, . . . railleur" in our ways must today face the unpleasant reality, and set about to build our own theories, and to help our own disciples.

THE POET OF POETS IN URDU*By* CAPTAIN S. M. ZAMIN ALI, M.A.

Mir Babar Ali, Anis, was born at Fyzabad sometime between 1216 and 1220 A.H. as the exact date of his birth could not be ascertained. He belonged to a very distinguished family which had adopted 'Poetry' as its literary pursuit for generations. His forefathers came from Hirat and settled in old Delhi. His great-grandfather—Mir Ghulam Husain, Zahik, was a renowned poet of his age and used to compose both in Urdu and Persian languages. On the fall of the kingdom of Delhi he came to Fyzabad and settled there. Mir Ghulam Hasan, Hasan, the grandfather of Mir Anis was a poet of a high order. His Masnavi Sehrul Bayan—a piece of imperishable poetry—has immortalized him for ever. He used to live with his father at Fyzabad but when Nawab Asif-ud-daula changed his capital from Fyzabad to Lucknow he also came and settled at Lucknow where he remained till death. Mir Mustahsan, Khaliq, the father of Mir Anis, was one of the greatest poets of his age. He began to compose poetry at the age of 16 and after compiling a full Diwan of Ghazal, he took to composing Marsia and wrote only in this form till death. He is regarded as one of the best Marsiya-writers of his age. Mir Anis after completing his education in Arabic and Persian on traditional lines with Maulana Najaf Al Fyzabadi and Maulavi Syed Haider Ali Lucknawi, the well-known scholars in Oriental languages, took to composing poetry and started with Ghazal. But soon after, probably not finding much scope in it to show his poetic talents, he adopted Marsiya and adhered to it till death. Each Marsiya described the chivalry and martyrdom of a particular hero and contained about 600 couplets. Besides, he composed Rubaies and Sala'ns also. It is not easy to give the correct number of his Marsiyas as many of them have not seen the light. His work, as published by the Newal Kishore Press, Lucknow, comprises in six big volumes. At a rough calculation one can say that he composed more than one *Lakh* couplets. He studded his compositions with new similes and metaphors and inlaid them with high thought and poetic imagination. He made the structure of the Marsiya so complete and so finished as to leave no room for posterity to make any improvement on it in future.

He also made the recitation of the Marsiya an art in itself. He used to read it out to the audience in a sweet but graceful manner accompanied with gestures. Every word was delivered articulately with a suitable modulation of the voice and every description was explained by movement. All these combined with his charmingly graceful appearance in keeping the audience spell-bound. No one has, so far, surpassed him either in the skill of recitation or in the art of composition of Marsiya.

He was of fair complexion, fairly tall stature, well-built body, oval but pleasant and handsome face, large eyes and broad chest. He possessed a classical and beautiful gait. He used to wear loose trousers, large and loose Kurta and a Pachgoshia Topi. Lucknawi Ghetla of yellow velvet was usually used by him as his footwear. He also used to have a beautiful walking stick and a white handkerchief. He was well up in riding, sword exercises, "Binwat" and "Bank". Throughout his life he never missed taking Indian exercise. He was a man of strong character and well-disciplined will. Nothing could have moved him to change his principle. It is said that once he was requested by Sir Asma'n Jah, a big Jagirdar of Hyderabad Deccan, to recite his Marsiya at a Majlis in Hyderabad with Mansabdari Pagri as his head-dress instead of the usual Pachgoshia Topi of Lucknow and for this he was offered ten thousand rupees. But he flatly refused the offer. Once Hakeem Mahdi, a trustee of Najaf, notified without consulting Mir Anis, that Mir Anis would recite his Marsiya at the Majlis to be convened by him (Hakeem Mahdi) on such and such date. Mir Anis getting the information, refused to do so. Hakeem Mahdi sent word to Mir Anis threatening to stop the honorarium which he used to get from the Najaf endowments if he failed to recite his Marsiya. Mir Anis replied that the stoppage of the honorarium would be looked upon by him as if some stars of his brocade (Zardozi) slippers, which he happened to wear at that moment, had fallen off. The well-wishers of Mir Anis tried to persuade him but failed in their attempt and Mir Anis did not care a bit for the loss.

So long as Lucknow flourished under the benign rule of the Kings of Oudh Mir Anis did not accept any invitation to go out of Lucknow for reciting his Marsiyas. At the fall of the kingdom he was so deeply touched that he had left reciting Marsiya for some time. At last being prevailed upon by the incessant requests of his admirers he agreed to go

out of Lucknow and first went to Patna and then to Benares, Allahabad and Hyderabad. At each place he was cordially welcomed and received with great honour and respect.

He died at the age of 72 in 1291 A.H. Mirza Dabeer has commemorated the year of his death in his well-known hemistich which runs as follows:--

طور سینا ہے کلیم اللہ منبر ہے انیس

The lucid, clear and chastened style, the sharp appropriate words, the pleasant construction, the vivid description, the lively and detailed narration, the happy allusion and the profusion of similes and metaphors of Mir Anis keep the reader enchanted and spell-bound. The ease and fluency which pervade all through his work are incomparable. Lines carrying high thoughts, lofty imagination, classical allusion all reduced to simple poetic language move gently one after the other like the waves of a river till they reach the goal. He is above all poets ancient and modern. He is a poet of poets. He draws the images of nature easily and happily. The landscape, the heaven, the sun, the morning, the noon, the night, the bare plains, the verdurous park, the chirping birds, the orchards, the rising and setting sun, the twilight, all are engaged in the services of his tragic poetry. He describes them so vividly and portrays their images so truly that it seems that he does not speak of them but they speak through him. He is an instrument rather than a painter of them. Here are some specimens of his masterly painting of natural phenomena.

A beautiful description of morning :

پہولا شفق سے چرخ پہ جب لالہ زار صبح
گلزار شب خزاں ہوا آئی بہار صبح
کرنے لگا فلک زر انجم نثار صبح
سرگرم ذکر حق ہوئے طاعت گزار صبح
تھا چرخ اختری پہ یہ رنگ آفتاب کا
کھلتا ہے جیسے پھول چمن میں گلاب کا
چلنا وہ باد صبح کے جھونکوں کا دمدم
مرغان باغ کی وہ خوش الکائیاں بہم

وہ آب و تاب نہر وہ مرجر نکا پیچ و خم
 سردی ہوا میں پر نہ زیادہ بہت نہ کم
 کہا کہا کے اوس اور بھی سبزہ ہوا
 تھا موتیوں سے دامن صکرا بھرا ہوا
 وہ نور صبح اور وہ صکرا وہ سبزہ زار
 تھے طائروں کے غول درختوں پہ بے شمار
 چلنا نسیم صبح کا رہ رہ کے بار بار
 کو کو وہ قمریوں کی وہ طاؤس کی پکار
 وا تھے درجے دماغ بہشت نعیم کے
 ہر سو رواں تھے دشت میں جھونکے نسیم کے
 آمد وہ آفتاب کی وہ صبح کا سماں
 تھا جسکی ضو سے وجد میں طاؤس آسمان
 ذروں کی روشنی پہ ستاروں کا تھا گماں
 نہر فرات بیچ میں تھی مثل کہکشاں
 ہر نکل پر ضیا بے سر کرہ طور تھی
 گویا فلک سے بارش باران نور تھی
 وہ پھولنا شفی کا وہ مینائے لاجورد
 مکمل سی وہ گیلاہ وہ گل سبز و سرخ و زرد
 رکھتی تھی پھونک کر قدم اپنا ہوائے سرد
 یہ خوف تھا کہ دامن گل پر پڑے نہ گرد
 دھوٹا تھا دلکے داغ چمن لالہ زار کا
 سردی جگر کو دبتا تھا سبزہ کچھار کا

Here is a description of autumnal season as experienced in sandy places.

مکھی تھے شرر شدت گرما سے حاکر میں
 چلتی تھی یہ لوں آگ بھڑکتی تھی جگر میں
 نہ بکر میں راحت تھی کسی دل کو نہ ہر میں
 جھیلوں میں نہ پانی تھا نہ پتے تھے شکر میں
 پایاب تھے گرمی سے وہ دریا جو پڑے تھے
 سوتیں بھی نہ آتی تھیں کنویں خشک پڑے تھے

بتھہر کی چٹانوں سے نکلتے تھے شرارے
 ناری تھی ہوا، سب شجر زرد تھے سارے
 دوبے تھے عرق میں اسداللہ کے ہمارے
 دھڑ کا تھا کہ یہ لوں کسی بچے کو نہ مارے
 ہوش اتنا نہ تھا اصغر معصوم کو غش سے
 اوزے تھے لب لعل سکینہ کے عطش سے

Here is an extract from the graphic description of a hot, sultry day.

وہ لڑن وہ آفتاب کی حدت و تاب و تب
 کالا تھا رنگ دھوپ سے دن کا مثال شب
 خود نہر علقمہ کے بھی سوکھے ہوئے تھے لب
 خیمے تھے جو حبابوں کے تپتے تھے سب کے سب
 سرخی اڑی تھی پھولوں سے سبزی گیہاں سے
 سایہ کونئیں میں اترا تھا پانی کے چاہ سے
 آب رواں سے منہ نہ اُٹھاتے تھے جانور
 جنگل میں چھپتے پھرتے تھے طائر ادھر اُدھر
 مردم تھے سات پردوں کے اندر عرق میں تر
 خستخانہ مژہ سے نکلتی نہ تھی نظر
 گر آنکھ سے نکل کے ٹھہر جائے راہ میں
 پتہ جائیں لاکھ ابلے پائے نگاہ میں
 گر داب پر تھا شعلہ جوالہ کا گمان
 تہ میں تھے سب نہنگ مگر تھی لبر پہ جان
 انگارے تھے حباب تو پانی شرر فشاں
 منہ سے نکل پڑی تھی ہر اک مرج کی زباں
 پانی تھا آگ گرمی روز حساب تھی
 ماہی جو سیخ موج تک اُٹھی کباب تھی

The picture of the rising sun :

پہاڑا جو گریبان شب. آفت کی سحر نے
 پردے میں چھپایا رخ روشن کو قمر نے
 بیمانہ خورشید لگا نور سے بھر نے
 گردوں سے سفر فوج کراکب لگی کرنے

تابان جو رخ نیر افلاک ہوا تھا
 ذروں سے زر افشاں ورق خاک ہوا تھا

Perhaps nowhere else the popular saying "Great men think alike" holds good more suitably than in the case of Anis and other poets who are widely separated by distance and time. I will justify my remarks by quoting lines containing same thought from Macaulay, Shakespeare, Young, Firdausi and Anis.

Description of morning :

Shakespeare:---

Lo! Here the gentle lark weary of rest,
 From his moist cabinet mounts up high,
 And wakes the morning from whose silver breast,
 The sun ariseth in his majesty;
 Who doth the world so gloriously behold
 The cedar-tops and hills seem burnished gold.

Firdausi:—

چو از کوہ بفروخت گیتی فروز * دو زلف شب تیرہ بگرفت روز
 ازان چادر قیم بیرون کشید * بدنندان لب ماہ در خوں کشید

Mir Anis:—

طے کرچکا جو منزل شب کارواں صبح
 ہونے لگا افق سے ہویدا نشان صبح
 گردوں سے کوچ کرنے لگے اختران صبح
 ہر سو ہوئی بلند صدائے اذان صبح
 پنہاں نظر سے روئے شب تار ہو گیا
 عالم تمام مطلع انوار ہو گیا
 خورشید نے جو رخ سے اٹھائی نقاب شب
 در کھل گیا سحر کا ہوا بند باب شب
 انجم کی فرد فرد سے لیکر حساب شب
 دفتر کشائے صبح نے الٹی کتاب شب
 گردوں پہ رنگ چہرہ مہتاب فق ہوا
 سلطان غرب و شرق کا نظم و نسق ہوا

A picture of dark night :

Edward Young:—

Night, Sable Goddess! from her ebon throne,
In rayless majesty, now stretches forth,
Her leaden sceptre over a slumbering world
Silence, how dead! and darkness how profound
Nor no listening ear an object find,
Creation sleeps.

Firdausi: —

شمے چون شبہ روی شستہ بقیر * نہ بہرام پیدا نہ کیوان نہ تیر
نہ آوای مرغ و نہ ہرّای دن * زمانہ زداں بستہ از نیک و بد

Anis:—

جب زلف کو کھولے ہوئے لیلائے شب آنی
پر دیس میں سادات پہ آفت عجب آئی
فریاد کنان روح امیر عرب آئی
غل تھا کہ شب قتل شہ تشنہ لب آئی
سادات کو کیا کیا غم جانکاہ دکھائے
رات ایسی مصیبت کی نہ اللہ دکھائے
تھی طرفہ شب تار کہ تارے بھی تھے مستور
اک پارہ ہے جس کا شب یلدا شب دیجور
دوڑے کہیں شب دیز نظر کا نہ تھا مقدور
ہوگا نہ تھا ثابت کوئی نزدیک ہے یا دور
مشعل نہ تھرتی تھی نہ شمعوں کا اوجالا
خیمہ بھی اندھیرے میں نظر آتا تھا کالا
or
دنیا تمام خراب میں تھی غیر ذات رب

Lord Macaulay:—

Meanwhile the Tuscan army,
Right glorious to behold,
Came flashing back the noon day light,
Rank behind rank, like surges bright
Of a broad sea of gold.

Mir Anis :—

یہ ذکر تھا کہ دور سے ظاہر ہوئے نشان
آمدًا زمیں پہ ظلم کا دریائے بیکراں
موجوں کی طرح سب تھیں صفیں پیش و پس رواں
لہراتے تھے ہوا سے علم مثل بادباں
ہلکا تھا دشت کین دغل اس طرح بجتے تھے
بادوں کا شور یہ تھا کہ بادل گرجتے تھے

Shakespeare:—

“All that glitters is not gold”

Merchant of Venice Act Sen.

Anis:—

”آئینہ جلا ہوئے قمر ہو نہیں جاتا
مس پر جو ملمع ہو تو زر ہو نہیں جاتا
جس پاس عصا ہو اسے موسیٰ نہیں کہتے
ہو ہاتھ کو عاقل ید بیضا نہیں کہتے

Shakespeare :—

Now is that noble vessel full of grief,
That it runs over even at his eyes.

Julius Caesar Act V Sen. 5.

Anis :—

اشک خالی اسے کرتے ہیں جو دل بھر آئے * شاہ رو نے کے لئے خیمہ کے اندر آئے

His treatment of natural scenery is marked with his deep belief in one fundamental truth that pervades nature.

وہ صبح اور وہ چھاؤں ستاروں کی اور وہ نور
دیکھے تو غش کمرے ازنی کوے کوہ طور
پیدا گلروں سے قدرت معبود کا ظہور
وہ جابجا درختوں پہ تسبیح خوان طیور
گلشن خجل تھے وادی مینو اساس سے
جنگل تھا سب بسا ہوا پھولوں کی باس سے

وہ قمر یوں کا چار طرف سرو کے عکسوم * کو کو کا شور نالہ ”حق سرہ“ کی دعوم
سبحان ربنا کی صدا تھی علی العموم * جاری تھے وہ جو اونکی عبادت کے تھے رسوم
کچھ گل فقط نہ کہتے تھے رب علا کی مدح * ہر خار کو بھی نوک زبان تھی خدا کی مدح

His imagery in words is so true and perfect that even the most elaborate painting of a skilful artist cannot stand match to it. The following extract presents a vivid picture of the prison-house where the family of Imam Husain was shut up after his martyrdom:—

شکل دل بزد تھا وہ سب مکاں سیاہ
تاروں کی روشنی کو بھی ملتی تھی واں نہ راہ
چھا یا تھا دل جلی ہوئی راندوں کا دود آہ
حجرے سے چشم تر کے نکلتی نہ تھی نگاہ
دیکھے کسی کی شکل کوئی یہ محال تھا
روزن بھی تھا کوئی تو وہ چشم غزال تھا
شب کا تو ذکر کیا ہے کہ لگتا تھا دن کو در
ظاہر تھے جابجا حشرات زمین کے گھر
تھے وقف آشیان انابیل سقف و در
نکلا وہ مرے قید ہوا اس میں جو بشر
گھر تھا اجل کا خانہ رنج و بلا نہ تھا
بوسروں سے واں چراغ کسی شب جلا نہ تھا

Here is another graphic description of a warrior who is full of sorrow and wrath at the death of his four sons by the hand of the opponent and being overpowered with the spirit of revenge, is going to give a battle:—

بے جان ہوئے نبرد میں بیٹے جو اوسکے چار
ارزق کا دل ہوا صفت لالہ داغدار
جوش غضب سے سرخ ہوئیں چشم نابکار
مثل تنوز منہ سے نکلنے لگا بخار
جیب قبا کو مثل کفن پہاڑ تا ہوا
نکلا برے سے دیو سا چنگھاڑتا ہوا
شانے پہ تھی شقی کے وہ دو ٹانگ کی کہ اں
ارجن بھی جس سے سرہم کے گوشہ میں ہونہاں
چار ائینہ وہ پہنے تھا ہر میں کہ الامان
دب جائیں جسکے بوجھ سے رستم کے استخوان
کہتی تھی منہ ذرہ بدن بد خصال میں
چکڑا ہے پیل مست کو لڑھ کے جال میں

He holds up to his readers a faithful mirror in which human life and nature are reflected. You do not only see them but feel them too. He often presents a kaleidoscopic scene of crowded and conflicting emotions giving each one of them a uniform colour and brightness. The following extract will justify this remark in which he has shown the emotion of man, woman, and child at a time when a gleam of joy has entered the hearts already crushed with overwhelming anxiety, grief and pending danger. In order to make the reader fully understand the situation, I am giving the context. Imam Husain appoints his brother Hazrat Abbas as the Commander of his small army, but before doing so he consults his sister whose sons had they not been of tender age would, by right of heirship, have got the position of the bearer of the Islamic flag. She proposes Abbas and gives him the banner. As it is a matter of great honour and distinction everyone expresses his happiness. The piece, besides showing the emotion blended with intense grief and joy of the persons who realize the dangerous situation in which they are placed, gives us a true specimen of Begamti language of Lucknow.

بس جسکو تم کہو اوسے دین فوج کا علم
 کی عرض جو صلاح شد آسمان حشم
 فرمایا جب سے اُٹھ گئیں زعراے با کرم
 اس دن سے تم کو ماں کی جگہ جانتے ہیں ہم
 مالک ہو تم بزرگ کوئی ہو کہ خورد ہو
 جس کو کہو اوسے کو یہ عہد سپرد ہو
 بولیں بہن کہ آپ بھی تولیں کسی کا نام
 ہے کس طرف توجہ سردار خاص و عام
 گر مجھ سے پوچھتے ہیں شد آسمان مقام
 قرآن کے بعد ہے تو علمی کا ہے کچھ کلام
 شوکت میں قد میں شان میں ہمسر نہیں کوئی
 عباس نامدار سے بہتر نہیں کوئی
 عاشق غلام خادم دیرینہ جاں نثار
 فرزند بھائی زینت پہلو وفا شعار
 جرّار یاد گار پدر فخر روز گار
 راحت رساں مطیع و نوردار و نامدار

صفدر ہے شیر دل ہے بہادر ہے نیک ہے
 بے مثل سیکڑوں میں ہزاروں میں ایک ہے
 آنکھوں میں اشک بھر کے یہ بولے شہِ زمن
 ہاں تھی یہی علی کی وصیت بھی اے بہن
 اچھا بلائیں آپ کدھر ہے وہ صف شکن
 اکبر چچا کے پاس گئے سن کے یہہ سخن
 کی عرض انتظار ہے شاہِ غبور کو
 چلئے پھوپھی نے یاد کیا ہے حضور کو
 عباس آئے ہاتھوں کو جوڑے حضور شاہ
 جاؤ بہن کے پاس یہہ بولا وہ دیں پناہ
 زینب وہیں علم لئے ہوئے اُنیں بہ عزو جاہ
 بولے نشان کو لیکے شہِ عرش بار گاہ
 انکی خوشی وہ ہے جو رضا پہنچتن کی ہے
 لو بھائی لو علم یہہ عنایت بہن کی ہے
 دکھ کر علم پہ ہاتھ جھکا وہ فلک و تار
 ہمشیر کے قدم پہ ملا منہ بہ افتخار
 زینب بلائیں لیکے یہہ بولیں کہ میں نثار
 عباس فاطمہ کی کماٹی سے ہوشیار
 ہو جائے آج صلح کی صورت تو کل چلو
 ان آفتوں سے بھائی کو لیکر نکل چلو
 کی عرض میرے جسم پہ جسوقت تک ہے سر
 ممکن نہیں ہے یہہ کہ بڑھے فوج بد گہر
 تیغین کھچیں جو لاکھ تو سینہ کروں سپر
 دیکھیں اوٹھا کے آنکھ یہہ کیا تاب کیا جگر
 ساونت ہیں پسر اسد ذولجلال کے
 گر شیر ہو تو پھینک دیں آنکھیں نکال کے
 منہہ کر کے سوئے قبر علی پھر کیا خطاب
 ذرے کو آج کر دیا مولا نے آفتاب
 یہہ عرض خاکسار ہے بس یا ابو تراب
 آقا کے آگے ہوں میں شہادت سے کامیاب

سر تن سے ابن فاطمہ کے روبرو گرے
 شبیر کے پسینہ پہ اپنا لہو گرے
 یہہ سن کے ائی زوجہ عباس نامور
 شوہر کے سمت پہلے کنکھیوں سے کی نظر
 لیں سبط مصطفیٰ کی بلانیں بچشم تر
 زینب کے گرد پھر کے یہہ بولی وہ نوحہ گر
 فیض آپکا ہے اور تصدق امام کا
 عزت بڑھی کنیز کی رتبہ غلام کا
 سر کو لگا کے چھاتی سے زینب نے یہہ کہا
 تو اپنی مانگ کو کہہ سے تھندی رہی صدا
 کی عرض مجھ سے لاکھ کنیزیں ہوں تو فدا
 بانو سے نامور کو سہاگن رکھے خدا
 صندل سے مانگ بچوں سے گودی بھری رہے
 یارب بقول پاک کی کھیتی ہری رہے
 قسمت وطن میں خیر سے پھر رشہ کو لیکے جاے
 یشرپ میں شور ہو کہ سفر سے حسین آئے
 أم البنین جاہ و حشم سے پسر کو پائے
 جلدی شب عروسی اکبر خدا دکھائے
 مہندی تمہارا لال ملے ہاتھ پاؤں میں
 لاؤ دولہن کو بیاہ کے تارونکے چھاؤں میں

Now Sakina, a 5 years' old daughter of Husain, comes to greet her uncle :—

ناگہ آئے بالی سکینہ نے یہہ کہا
 کیسا ہے یہہ ہجروم کدھر ہیں میرے چچا
 عہدہ علم کا اونکو مبارک کرے خدا
 لوگو مجھے بلانیں تو لینے دو اک ذرا
 شوکت خدا بڑھائے میرے عمو جان کی
 میں بھی تو دیکھوں شان علی کے نشان کی
 عباس مسکرا کے پکارے کہ آؤ آؤ
 عمو نثار پیاس سے کیا حال ہے بتاؤ

بولی لپٹ کے وہ کہ میری مشک لیتے جاؤ
اب تو علم ملا تمہیں پانی مجھے پلاؤ
تکفہ کوئی نہ دیکھئے نہ انعام دیکھئے
قربان جاؤں پانی کا اک جام دیکھئے

Here is a beautiful narrative how a mother is creating martial spirit in her sons who are of tender age and how she infuses in them a desire for good name.

خوش ہو کے کہا مان نے کہ شاباس دلیرو
اب دیر نہیں خوب سدھا دو مرے شیرو
ہاں چاہئے منہ نیزہ و خنجر سے نہ پھیرو
دو شیر ہو ملکر عمر و شمر کو گھیرو
توقیر تمہاری ہو مری ناموری ہو
سر دوزوں کے لاؤ تو میں جانوں کہ جری ہو
۱۵۱۵ کو جو پوچھو تو علمدار پیمبر
ہاتھوں کے عوض جن کو خدا نے دیئے دو پر
نانا سا تو عالم میں نہ تھا کوئی دلاور
کرار کی جرات تو سنی ہوگی مکرر
یوں سب ہیں پہ سر تاج دلیروں کے تمہیں ہو
ماں صدقے گئی شیر تو شیروں کے تمہیں ہو
اس گھر کے بزرگوں کا چلن تیغ زنی ہے
جو فقر میں کرتا ہے سخاوت وہ غنی ہے
کیا شہرہ خیبر شکنی بت شکنی ہے
جو بات پہ سر دے وہ سخاوت کا دھنی ہے
ہوئے کی کہاں آنکھ کہاں مرد کے تیور
چھپتے نہیں لاکھوں میں جوانمرد کے تیور
ہمراہ کوئی واں سے نہیں لاتا ہے رتبہ
جو نام پہ مرتا ہے وہی پاتا ہے رتبہ
سر بینچ کے ذیقدر کو ہاتھ اُٹا ہے رتبہ
ہٹتا ہے قدم برہے کے تو گھٹ جاتا ہے رتبہ
مرکر نہ ہتے قابل احسنت وہی ہے
جو کھیت میں سر سبز ہو ساونت وہی ہے

دریا کی طرف پیاس میں نکتے نہیں غازی
 گر شیر بھی جھپٹے تو سرکتے نہیں غازی
 تلواروں میں آنکھوں کو جھپکتے نہیں غازی
 بجلی بھی گرے گر تو جھجکتے نہیں غازی
 آفت میں حواس اُن کے بچا ہوتے ہیں پیارو
 جزاروں کے تیزور ہی جدا ہوتے ہیں پیارو
 تیروں کی مہم بات میں سر کرتے ہیں صفدر
 آقا کے دل پاک میں گھر کرتے ہیں صفدر
 تلواروں میں سینوں کو سپر کرتے ہیں صفدر
 عزت پہ بزرگوں کے نظر کرتے ہیں صفدر
 دم ہونٹوں پہ آئے تو شجاعت نہیں جاتی
 مرنے پہ بھی چہرے کی بشاشت نہیں جاتی
 نانا نے تمہارے در خیبر کو جو توڑا
 ماند سپر ہاتھ سے اُس در کو نہ چھوڑا
 ہر وار میں بچتا تھا نہ اسوار نہ گھوڑا
 خالی ہوا جب قلعة تو منہ جنگ سے موڑا
 تھراتے تھے کفار تزلزل میں زمیں تھی
 تھا زور تو یہ اور غذا نان جویں تھی
 جب دست یداللہ میں تیغ دو سر آئی
 بس قبضہ قدرت میں یکا یک ظفر آئی
 جھپٹے یہ ادھر فوج پہ نصرت ادھر آئی
 بعد آپ پھرے فتح کی پہلے خبر آئی
 پڑھتے ہیں وہ کلمہ جو مسلمان ہوئے دب کے
 اب تک تو سر اٹھتے نہیں کفار عرب کے
 خندق کی و غامر سیہ کار کی وہ دھوم
 تھراتا تھا تلوار سے جس کی عرب و روم
 رو کر کے جو حربوں کو بڑھا خاصۂ قیوم
 چھپتا اسد آہو پہ یہ سب کو ہوا معلوم
 اک ضرب میں نہ گرز نہ مغفر تھا نہ سر تھا
 خندق کے ادھر لاش سر نکس ادھر تھا

جس وقت ظفر یاب ہوئے حیدر کرار
 اک ہاتھ میں سر عمر کا اور ایک میں تلوار
 فرمایا نبی نے یہ بہ اعلان و بہ تکرار
 افضل ہے دوعالم کی عبادت سے یہ اک وار
 سرفتح کا تھا پاؤں پہ خالق کے ولی کے
 جبریل امیں چومتے تھے ہاتھ علی کے
 واریو ہمیں تم بھی مرے کام آؤ تو جانوں
 آقا کی اطاعت کو بجا لاؤ تو جانوں
 ان چھاتیوں پر زخم سناں کھاؤ تو جانوں
 لڑ بھڑ کے جب اس فوج سے مر جاؤ تو جانوں
 جرار ہو سب حال سے محکوم ہیں تمہارے
 مجھکو یہی دھڑکا ہے کہ سن کم ہیں تمہارے
 ماں صدقے گئی گھات پہ دریا کے نہ جانا
 پانی کی طرف پیاس میں گھبرا کے نہ جانا
 ساحل پہ کبھی سرد ہوا پائے نہ جانا
 صابر ہو تو رھواروں کو گرما کے نہ جانا
 ایسے تو نہیں جو مجھے محکوم کرو گئے
 میں دودھ نہ بخشوں گی جو پیاسے نہ مرو گئے
 جس پانی کو ترسے اسد اللہ کا پیارا
 کیوں جاؤ ادھر نہر پہ کیا کام تمہارا
 عاقل کے لئے کافی و وافی ہے اشارہ
 گر آب بقا ہو تو مناسب ہے کنارہ
 وہ کام ہو جس کام میں کوثر پہ گزر ہو
 دم بھر کے لئے کیوں عرق شرم میں تر ہو
 بھائی کسنی ہنگام میں بھائی کو نہ چھوڑے
 دونوں میں کوئی عقدہ کشائی کو نہ چھوڑے
 جرات کو جلالت کو لڑائی کو نہ چھوڑے
 ہمت کو مروت کو بھلائی کو نہ چھوڑے
 جو امر کہ مشکل ہے وہ دشوار نہ ہوگا
 اک دل ہوئے جب دو نو کوئی چار نہ ہوگا

اڻ بھائی لڙے بڙے ڪے جو ھانھہ اڻڪ کا تھڪ جائے
 بلوہ جو پھر اُسپر ھو تو بہہ بہر ڪمڪ جائے
 ھاتھوں میں صفائی ھو کہ بسمل بھی پھڙڪ جائے
 گر صف ھو تو پسپا ھو پڊا ھو تو سرڪ جائے
 حملوں میں سب انداز ھوں خالق ڪے ولی ڪے
 پہچان لین وہ سب کہ نواسے ھیں علی ڪے
 نیڙوں کی طرف چھاتیان تانے ھوئے جانا
 ھان تیروں کی بارش میں سپر منہ پہ نہ لانا
 ھنس ھنس ڪے میں قربان گئی برجھیاں کھانا
 لازم ھے وہ ھمت کہ معرف ھو زمانا
 اس جنگ کا چرچا سکر و شام رھيگا
 دنیا میں اگر تم نہ رھے نام رھيگا

Here is another instance where a mother is trying to create courage and warlike spirit in her sons.

دیکھو کہے دیتی ھوں خبر دار خبر دار
 جیتے جو رھے دودھ نہ بکھشونگی میں زنہار
 شیروں ڪے یہ ھیں کام کھچے جس گھڙي تلوار
 رکھے دیویں گلا بڙے ڪے تہ خنجر خونخوار
 توڙیں ھیں صفیں جنگ میں جب کھیت پڙے ھیں
 جنات ڪے لشکر سے علی یوں ھی لڙے ھیں
 اعدا کو مرے دورہ کی تاتیر دکھاؤ * اجلال حسن شوکت شبیر دکھاؤ
 جعفر کی طرح جوھر شمشیر دکھاؤ * تن تن ڪے ید اللہ کی تصویر دکھاؤ
 خورشید امامت سے قرابت میں قرین ھو
 تم شیر ھو شیروں ڪے حسینونکے حسیں ھو
 جعفر سے نوردار ڪے دلبر ھو دلبرو * حیدر سے دلور ڪے دلور ھو دلبرو
 جبار ھو کرا ھو صفدر ھو دلبرو * ضرغام ھو ضیغم ھو غضنفر ھو دلبرو
 تیروں سے جوانوں ڪے جگر ڌڙ ڪے آؤ
 خیبر کی طرح کوفے کا در توڙ ڪے آؤ
 خندق کی لڙائی کی طرح جنگ کو جیھلو
 بچے اسد اللہ ڪے ھو جان پہ کھیلو

تیغ و نمیں دھنسو چھاتیوں سے نیزونکو ریلو
 کوفے کو تہ تیغ کرو شام کو لیلو
 دو اور جلا آئینہ تیغ عرب کو
 لو روم کو قبضہ میں تو قابو میں حلب کو
 خاقان کا رہے تخت نہ قیصر کا رہے تاج
 ہاں غازیو چین و حبش و زنگ سے لو باج
 چرہنا ہے لڑائی میں جوان مردونکو معراج
 گیتی تہ و بالا ہو وہ تلوار چلے آج
 یوں آئیو چار آئینہ پہنے ہوئے ہر میں
 جس طرح علی بعد ظفر آئے تھے گھر میں

Here are some specimens of an ideal characterisation :—

میلے نہ ہوں تیمور یہ سپاہی کے ہنر ہیں
 جس کے ہیں بس اوسکے ہیں جدھر ہیں بس ادھر ہیں
 گہ عطر میں ڈوبے ہیں گہے خون میں تر ہیں
 صحبت میں مصاحب ہیں لڑائی میں سپر ہیں
 وہ اور کسی سے نہ جھکیں گے نہ جھکے ہیں
 عزت میں نہ فرق آئے کہ سر بیچ چکے ہیں

کہنے لگے پکار کے عباس حق شناس
 ہاں ناصران قبلہ کونین با حواس
 دل میں نہ خوف ہو نہ زباں پر کلام یاس
 جیتے ہو تو حسیں سے ہو قدرداں کے پاس
 گر مر گئے تو روضۂ رضواں کی سیر ہے
 دونوں طرح مآل تمہارا بخیر ہے

A specimen of faithful expression of the excitement in young minds when the battle is about to take place.

وہ اشتیاق جنگ میں لڑکوں کے ولولے
 بیتاب تھے کہ دیکھئے تلوار کب چلے
 چہرے وہ آفتاب سے وہ چاند سے گلے
 سب فاطمہ کی بیٹیوں کی گود کے ہلے

اک اک رسول حق کی لحد کا چراغ تھا
 جس پر علی نے کی تھی ریاضت وہ باغ تھا
 اکبر سے عرض کرتے تھے سینہ سپر کئے
 یہ نیمچے نہ لیونگے دم بے لہو پیئے
 گر آج مر گئے تو قیامت تلک جئے
 صدقے ہوں اس قدم پہ یہ سر ہیں اسی لئے
 آقا کے آگے لطف ہے تیغ آزمائی کا
 آج آپ دیکھئے گا تماشہ لڑائی کا
 بچپن پہ خادمان اولوالعزم کے نہ جائیں
 جب چاہیں معرکہ میں ہمیں آپ آزمائیں
 تن تن کے روکیں برچہیاں ہنس ہنس کے زخم کھائیں
 بجلی گرے تو منہ پہ چہچک کر سپر نہ لائیں
 جھپکے پلک کسی سے تو آنکھیں نکالئے
 بڑھکر ہٹیں جو پاؤں تو سر کاٹ ڈالئے
 کہتے تھے مسکرا کے یہ زینب کے دونوں لال
 کہلتے ہیں خود دلیروں کے جوہر دم جدال
 ہر وقت چاہئے مدد شیر ذوالجلال
 نعرے ابھی کریں تو ہلے عرصۂ قتال
 اوتری ہے تیغ جنکے لئے وہ دلیر ہیں
 سب ہم کو جانتے ہیں کہ شیروں کے شیر ہیں

A description of universal truth:—

دولت کوئی دنیا میں پسر سے نہیں بہتر
 راحت کوئی آرام جگہ سے نہیں بہتر
 لذت کوئی پاکیزہ ثمر سے نہیں بہتر
 نگہت کوئی بوئے گل تر سے نہیں بہتر
 صدموں میں علاج دل مجروح یہی ہے
 دیکھان ہے یہی روح یہی روح یہی ہے
 ماں باپ کا دل غنچۂ خنداں ہے اسی سے
 وہ گل ہے کہ گھر رشک گلستان ہے اسی سے
 سب راحت و آرام کا سامان ہے اسی سے
 آبادی کا شانہ انسان ہے اسی سے

کس طرح کھلے دل کہ جگر بند نہیں ہے
 گھر قبر سے بدتر ہے جو فرزند نہیں ہے
 یہ وہ ہے عصا پر جوان رہتا ہے جس سے
 یہ وہ ہے نگیں نام و نشان رہتا ہے جس سے
 وہ شمع ہے پر نور مکاں رہتا ہے جس سے
 وہ درُہے قوی رشتہ جاں رہتا ہے جس سے
 کھوئے نہیں یہ مال زر و مال کے بدلے
 موتی بھی لٹا دیتے ہیں اس لال کے بدلے
 صولت یہی شوکت یہی اجلال یہی ہے
 ثروت یہی حشمت یہی اقبال یہی ہے
 سرمایہ یہی نقد یہی مال یہی ہے
 گوہر یہی یاقوت یہی لال یہی ہے
 دلہند ہو پہلو میں تو غم پاس نہیں ہے
 کچھ پاس نہیں گر یہ رقم پاس نہیں ہے
 ماں باپ کی آرایش و راحت ہے پسر سے
 تلخی میں بھی جینے کی حلاوت ہے پسر سے
 خوں جسم میں آنکھوں میں بصارت ہے پسر سے
 ایام ضعیفی میں بھی طاقت ہے پسر سے
 آرام جگر قوت دل راحت جاں ہے
 پیری میں یہ طاقت ہے کہ فرزند جاں ہے
 وہ شے ہے خوشی در پہ کھڑی رہتی ہے جس سے
 وہ چین ہے راحت کی گھڑی رہتی ہے جس سے
 وہ لال ہے اُمید بڑی رہتی ہے جس سے
 وہ درُہے یہ در جان لڑی رہتی ہے جس سے
 آرام جگر تاب و توان ساتھ ہے اس کے
 پھرنا ہے جدھر رشتہ جان ساتھ ہے اس کے
 مالک سے بھرے گھر کے اجر جانے کو پوچھو
 گھر والوں سے اس تفرقہ پر جانے کو پوچھو
 ماں باپ سے قسمت کے بگڑ جانے کو پوچھو
 یعقوب سے یوسف کے بچھڑ جانے کو پوچھو

اللہ دکھائے نہ الم نور نظر کا
 بہ جاتا ہے آنکھوں سے لہو قلب و جگر کا
 اب رخصت اکبر ہے شہ تشنہ دہاں سے
 فرزند بچھڑتا ہے امامِ دو جہاں سے
 پیری میں چھڑاتا ہے فلک تازہ جواں سے
 کس فصل میں درِ پیش ہے درختِ تن و جاں سے
 آتی ہے اجل گود کا پالا نہیں جاتا
 صابر سے کلیجے کو سنبھالا نہیں جاتا

He does not merely give a description of the battle-field, the army, the weapon, the band, and the horses but makes them stand before your mental vision. You see them through and through. He pictures the vigility of warriors, jingling of weapon, clashing of swords, exchanging of attacks so truly, so vividly and so lively as to defy the greatest achievements of cinematography. He gives but two or three touches with his hasty pen and a living breathing man stands before you delivering an elegant war-speech. The following specimens will bear me up in these remarks :—

یہہ سنتے ہی غیظ ال یل غدار کو آیا
 میدان میں اوڑا تا ہوا رھوار کو آیا
 کس غیظ سے تولے ہوئے تلوار کو آیا
 دلہند ید اللہ سے پیکار کو آیا
 کاندھے پہ سپر لب پہ سخن بے ادبی کے
 ظالم کو عداوت تھی گھرانے سے نبی کے
 وہ خود تہمتن سے بھی جسکا نہ اوتھے بار
 چار آئینہ اک قلعة فولان کی دیوار
 اڑنر تو خون اور مار سیہ نیزہ خونخوار
 وہ گرز گراں سر جو کرے کوہ کو مسمار
 خنجر وہ کہ مریح کا رنگ اورتا تھا جس سے
 دھال ایسی کہ تلوار کا منہ مڑتا تھا جس سے
 کافر نے رجز پڑھ کے تگاور کو نکالا
 اکبر بھی بڑھ چلنے لگا بھالے پہ بھالا

اڑ در تھے زبانوں کو نکالے تہ بالا
 گردں کو لڑائے ہوئے تھا کالے سے کالا
 پڑتی تھی سنان پر جو سنان دشت و غا میں
 چنگاریاں اُڑنی نظر آئی تھیں ہوا میں
 ہر طعن میں یاں اور کئے واں مہر گئے رھوار
 نقطہ یہہ سمتنے میں وہ پھر جانے میں پرکار
 چوٹیں جو کئی کھا ئے جھپکنے لگا غدار
 نیزے کو یہہ نیزے سے اورا لیگیا جوار
 کیا بند بند ہے لخت دل عقدہ کشا پر
 دیکھا تو سنان خاک پہ تھی داند ہوا پر
 غصے میں کمان لیکے بڑھا سرکش و بے پیر
 سر پر تھا عقاب علی اکبر صفت تیر
 پنچہ تھا کہ سر پنچہ ضرغام عدو گیر
 غل تھا کہ زہے زور جگر گوشہ شپیر
 یا دیکھتی تھی فوج فرس کی تک و دو کو
 یا پنچہ خورشید میں دیکھا مہ نو کو
 پھر گرز گراں شیر کو غدار نے مارا
 اوس ضرب کو رد کرے بڑھا شاہ کا پیارا
 چمکا جو نیز زیں ملک الموت پکارا
 لو قطع ہے اب نخل حیات ستم آرا
 شیروں نے جگر کانپ گئے خوف سے بر میں
 دو تکرے ہوا گرز گراں ایک تبر میں
 ہاں سر کا شرف پاؤں کو حاصل نہیں ہوتا
 اسفل کبھی اعلیٰ کے مقابل نہیں ہوتا
 اکبر نے کہا خیر تھکا گرھے تو دم لے
 بے تیرے بڑھے وار کریں ہم تو قسم لے
 دم لیکے بس اب میان سے شمشیر دو دم لے
 کیا کرتے ہیں ہم دیکھہ ذرا شیروں کے حملے
 ناخن جو نہ ہو عقدہ مشکل نہیں کھلتا
 جب تک کہ نہ تلوار کھنچے دل نہیں کھلتا

ہے طول عمل نیزہ خطی کا ہلا نا
 کرتی ہے کمان تیر سفاہت کا نشانا
 ہے گرز فقط بار گراں دوش پہ لانا
 لوہے کو مگر تیغ کے مانے ہے زمانا
 ایسا کوئی منصف ہے عرب میں نہ عجم میں
 جب کھینچ گئی تلوار تو ہے فیصلہ دم میں
 چار آئینہ مردوں کے لئے دفع ضرر ہے
 جوہر ہیں زرہ قبضہ شمشیر سپر ہے
 گہ ہاتھ کی زینت ہے گہے زیب کمر ہے
 رکھ لیکھئے پہلو میں تو آرام جگر ہے
 خوش قد ہے خوش اسلوب ہے خوش رو ہے حسیں ہے
 جب یہہ ہو تو حاجت کسی حرے کی نہیں ہے
 جب تیزی شمشیر زباں اوسکو دکھائی
 تھنڈا تو ہوا تھا پہ حرارت بھی کچھہ آئی
 تلوار علم کر کے جو دھال اوس کو دکھائی
 معلوم ہوا تیرہ گھٹا کوہ پر چھائی
 خور شید ہوا زرد اوزی گرد یہہ بن کی
 گھوڑے کی تگا پو سے زمیں ہل گئی دن کی
 شبذیز کو اکبر نے بھی کاوے پہ لگایا
 واں سے بھی ترپ کر فرس تیز تگ آیا
 منہہ کھولے ہوئے شیر پہ حملے کو سگ آیا
 پر زو سے الگ دیکے گیا اور الگ آیا
 لانی تھی اجل کھینچ کے شمشیر کے منہہ پر
 اُسکتا ہے روباہ کہیں شیر کے منہہ پر
 اکبر نے صدا دی کہ تھر سامنے آکر
 کیوں منہہ کو چھپاتا ہے جھلم چھرے پہ لاکر
 مردانہ دکھاوار حریفانہ وغا کر
 دیکھ اپنے رسالے کے جوانوں سے حیا کر
 نادان ہے تمیز حق و باطل نہیں رکھتا
 تو اتنے تن و نوش پہ کچھہ دل نہیں رکھتا

تجھ سے سا تو جوان لشکر بد خو میں نہیں ہے
 ہاں زور شجاعت تیرے بازو میں نہیں ہے
 گھوڑا تو ہے چالاک پہ قابو میں نہیں ہے
 فوجیں ہیں اودھریاں کوئی بھلو میں نہیں ہے
 ہم ایک ہیں جانباز کہ فوجوں سے لڑے ہیں
 کیا تجھ کو کہینگے جو صفیں باندھے کھڑے ہیں
 یہ سن کے بڑے غیظ و غضب میں وہ بل آیا
 اکبر نے کہا آ - کہ مقام اجل آیا
 بارے شجر جرات و ہمت میں پہل آیا
 بس روک لے پودا کہ فرس منہہ کے بل آیا
 یہ پھولنے پھلنے کی مگر فصل نہیں ہے
 گر پڑتا ہے جلدی تری کچھہ اصل نہیں ہے
 تلواریں کہینچیں برجھیاں چمکیں علم اُٹھے
 گھوڑوں کے تگ و پو میں برابر قدم اُٹھے
 نظارہ کو گر دوں پہ ملائک بہم اُٹھے
 گر گر کے اودھر خاک پہ شاہ اُمم اُٹھے
 اکبر جو مقابل ہوئے اُس ضال و مضل سے
 شپیر قریب آگئے بیتابی دل سے
 لڑ جانا وہ ڈھالوں کا وہ تلوار کی جھنکار
 آفت کی لڑائی تھی قیامت کا ہر اک وار
 مرحب تھا اودھر اور ادھر حیدر کرا
 تلوار پہ تلوار تھی دھوار پہ دھوار
 بجلی سے فزوں تھی ترپ آنش نفسون کی
 اسواروں تک آجاتی تھیں تاپیں فرسون کی
 مہمیز پہ مہمیز تھی اور کوزے پہ کوزا
 ہر مرتبہ منہہ مارتا تھا گھوڑے پہ گھوڑا
 کل پھر گئی جس باگ پہ جس نے جسے موزا
 زخمی ہوئی ہر کھیت کو دونوں نے نہ چھوڑا
 اس زور سے نیزوں کی بھی سریاں نہیں چلتیں
 یوں جھوم کے چلتے تھے کہ پریاں نہیں چلتیں

زن سے وہ جو تلوار گئی سن سے یہ آئی
 وہ خود سے ملتی ہوئی گردن سے یہ آئی
 وہ کھینچ کے سپر سے گئی جوشن سے یہ آئی
 وہ صدر سے خالی گئی تو سن سے یہ آئی
 ہاں بعد علی کم ہوئی جنگ و جدل ایسی
 غل تھا کبھی دیکھی نہیں رد و بدل ایسی
 غصے میں جو سفاک نے کی رخس کو مہمیز
 شہزادے کے گھوڑے کے قریب آگیا شبدیز
 بس تھام لی اکبر نے عدان فرس تیز
 جھپکا تھا وہ گھوڑا کہ چلی تیغ شرر ریز
 ہوش اور گئے اُس بانی بیداد ستم کے
 سرکٹ کے گرا فرق پہ چالیس قدم کے

Here is another specimen of Mir Anis's paintings :—

بے جان ہوئے نبرد میں بیٹھے جو اُس کے چار
 ارزق کا دل ہوا صفت لالہ داغدار
 جوش غضب سے سرخ ہوئیں چشم نابکار
 مثل تندور منہ سے نکلنے لگا بخار
 جیب قبا کو مثل کفن پھاڑتا ہوا
 نکلا پرے سے دیو سا چنگھاڑتا ہوا
 شانے پہ تھی شقی کے وہ دو ٹانگ کی کمان
 ارجن بھی جس سے سہم کے گوشے میں ہونہاں
 چار آئینہ وہ پہنے تھا ہر میں کہ الامان
 دب جائیں جس کے بوجھ سے رستم کے استخوان
 کھتی تھی یہ زہ بدن بد خصال میں
 جکڑا ہے پیل مست کو لوہے کے جال میں
 فوجیں ادھر دعا کی چلیں سوے آسمان
 بل کہا کے اُس طرف یہ پکارا وہ بد زباں

رستم بھی ہو تو کھینچ نہیں سکتے مری کماں
 جوشن کو توڑتا ہے مرا تیر بے امان
 ہے اوسکی فتح ساتھ ہرں میں جس رئیس کے
 سرمہ کیا ہے دیو کو چٹکی میں پیس کے
 قاسم نے دی صدا کہ بس اب کر زباں کو بند
 اللہ کو غرور و تکبر ہے ناپسند
 حق نے فہوتنی سے کیا ہم کو سر بلند
 نیزے کا بند باندھے کوئی چھپر کر سمند
 دیکھیں بلند کون ہے اور پست کون ہے
 کھل جائے گا ابھی کہ زبردست کون ہے
 اگے ہمارے دعویٰ جرات خدا کی شان
 گدی سے کھینچ لوں ابھی بڑھکر تری زبان
 مغرور اس پہ ہے کہ میں لڑکا ہوں تو جوان
 لے مہان سے کہ اس کا بھی ہو جائے امتحان
 ہیں شیر شیر خوار جناب امیر کے
 جھولے سے پھینک دیتے ہیں اژدر کو چیر کے
 بارہ برس کے سن میں لڑے شاہ ذوالفقار
 مرحب سا پہلوں نہ بچا وقت کار زار
 ہے دیکھنے کا یہ تن و توش او زبوں شعار
 گیندے کی دھال کاقتی ہے نبغ ابدار
 لڑکوں سے فوجیں بہاگی ہیں منہ پھیر کے
 ہاتھی کو مار ڈالا ہے بچوں نے شیر کے
 قائل کیا جو مصحف ناطق کے لال نے
 تر کر دیا اُسے عرق انفعال نے
 برچھا اوتھایا ہاتھ میں اوس بد خصال نے
 چھپر فرس کو قاسم یوسف جمال نے
 تکتے لگے صفوں سے جواں سب لڑے ہوئے
 عباس نامدار قریب آ کھڑے ہوئے
 کیوں تیغ قول قول کے بڑھتے ہو بار بار
 بیٹا سپر تو ہاتھ میں لیلو چچا نثار

صدقے تہے حواس کے اے میرے شہسوار
 ہاں دونوں پانوں رکھیں رکابوں میں استوار
 اے دو اس کو تیغ ابھی دم بہر تھمی رہے
 گہوڑا نہ بد مزاج ہو پٹری جمی رہے
 بیٹا تمہیں خدا نے دیا ہے علی کا زور
 گوپیل ہے پہ ہم تو سمجھتے ہیں اسکو مور
 بہرام کی طرح سے چلا اب میان گور
 دیکھو گے دیکھنے کا فقط ہے یہ زور و شور
 چتلے ہیں جتنے سانپ وہ دانتے نہیں کبھی
 گر جے ہیں جو بہت وہ برستے نہیں کبھی
 یہ کہکے اپنے چھوٹے سے نیزے کو دی تکان
 چمکی انی تو برق پکاری کہ الامان
 اک بند باندہ کر جو فرس سے کہا کہ ہاں
 داندائی داند پیر تو سنان سی لڑی سنان
 بل کیا کرے کہ زور ہی موڈی کا گھٹ گیا
 غل تھا کہ اڑدھے سے وہ افعی لپٹ گیا
 قاسم نے زور سے جوانی پر رکھی انی
 بھاگا شقی کے جسم سے زور تھمتنی
 بگڑا جو دھنگ جان پہ ظالم کے ابنی
 تھی اُس سنان کی نوک کہ ہیرو کی تھی کنی
 از کر گری زمین پہ سنان اس تکان سے
 گرتا ہے جیسے تیر شہاب آسمان سے
 جھنجھلا کے چرب نیزے کو لایا وہ فرق پر
 قاسم نے داند داند پہ مارا بچا کے سر
 دو انگلیوں میں نیزہ دشمن کو تھام کر
 جھٹکا دیا کہ جھک گئی گھوڑے کی بھی کمر
 نیزہ بھی دب کے ثروت گیا نابکار کا
 دو انگلیوں سے کام لیا ذوالفقار کا
 دو سمت سے چلے جو ملامت کے اُس پہ تیر
 چلایا تیغ تیز علم کر کے وہ شہیر

ہاں اے حسن کے لال بد خشاں بدہ بگیر
 نکلی چمک کے یان سے بھی تیغ قضا نظیر
 چمکا کے تیغ تیز جو قاسم سنبھل گئے
 سمجھا جو کچھ فرس کے بھی تیور بدل گئے
 مانند شیر غیظ میں آیا وہ پیل تن
 انکھیں ابل پڑیں صفت آہوئے ختن
 ماری زمیں پہ ٹاپ کہ لرزاتمام بن
 چلائے سب کہ گھوڑے پہ بھی لو چڑھا ہے دن
 میخیں زمیں کی اسکی نگاہوں سے ہل گئیں
 دونوں کنوٹیاں بھی کھڑی ہوئے مل گئیں
 فر فر نفس کی آتی تھی نتھنوں سے جب صدا
 کہتے تھے لوگ سب کہ ہے زفر یہ باد پا
 دشمن کو گھورتا ہے دھانا چبا چبا
 غل تھا کہ بس فرس ہو تو ایسا ہو باؤفا
 دشمن کو کیا نبرد میں بچنے کی آس ہو
 لڑے کٹاریاں یہہ فرس جسکے پاس ہو
 چھل بل دیکھائی فوج کو دوڑا تھما اوڑا
 صورت بنائی جست کی سمٹا جما اوڑا
 دیکھی زمیں کبھی کبھی سوئے سماں اوڑا
 مثل سمند بادشہ انما اوڑا
 جن تھا پری تھا سحر تھا آہو شکار تھا
 گویا ہوا کے گھوڑے پہ گھوڑا سوار تھا

Here is a specimen of his high imagination and lofty thought expressed with ease and fluency. The piece gives a description of the battlefield :—

نقارۂ وعا پہ چلی چوب یک بہ یک
 اتھا غریو کوس کہ ہلنے لگا فلک
 شیپور کی صدا سے ہراساں ہوئے ملک
 قرنا پھونکی کہ گونج اتھا دشت دور تک
 شور دھل سے شور تھا افلاک کے تلے
 مردے بھی تڑ کے چونک پڑے خاک کے تلے

گھوڑوں سے گونجتا تھا وہ سب وادی نبرد
 گردوں میں مثل شیشہ ساعت بھری تھی گرد
 تھا چرخ چار میں پہ رخ آفتاب زرد
 در تھا گرے زمیں پہ نہ مینائے لاجورد
 گرمی ہجوم فوج سے دو چند ہو گئی
 خاک اسقدر اڑی کہ ہوا بند ہو گئی
 کانپے طبق زمیں کے ہلا چرخ لاجورد
 مانند کھربا ہوا مٹی کا رنگ زرد
 اٹھ کر زمیں سے بیتھے گئی زلزلے میں گرد
 تیغوں کی آنچ دیکھ کے بھاگی ہوئے سرد
 گرمی سے دن کی ہوش اوڑے و خش و طیر کے
 شیر اسطرف اتر گئے دریا کو پیر کے
 تھرا رہا تھا خوف سے مینائے لاجورد
 ہلتے تھے کوہ کانپتا تھا وادی نبرد
 تھا دن بھی زرد دھوپ بھی زرد اور زمیں بھی زرد
 خورشید چہرپ گیا یہہ اٹھی کربلا میں گرد
 اک تیرگی غبار سے تھی چشم مہر میں
 تاپو پڑے ہوئے تھے محیط سپہر میں

The following few specimens will show how easily and successfully he has described the high philosophic thoughts, maxims and rules of life in short pithy language:—

گرچے ہمیں جو دہت وہ برستے نہیں کبھی
 چتلے ہمیں جتنے سانپ وہ دسٹے نہیں کبھی
 ہاں مال غیر کف میں تصرف نہ چاہئے
 آپس میں دوستوں کو تکلف نہ چاہئے
 لازم ہے کہ غور کرے ہمیش و پس کرے
 جو ہو سکے نہ کیوں بشر اوسکی ہرس کرے
 بیتھے نہیں زمیں پہ خزانے کو گز کے
 موت آئی اٹھ کھڑے ہوئے دامن کو جہاز کے
 اسفل کبھی اعلیٰ کے مقابل نہیں ہوتا
 جنت بھی اک رضاے الہی کا نام ہے

Here are a few instances of the numerous new similes which he has made use of:—

شعبہ صدا میں پنکھڑیاں جیسے پھول میں
 بلبل چہک رہا ہے ریاض رسول میں
 گو جا بجاسے کھل گیا ہے ریش کا خضاب
 رخصت ہے مل رہے ہیں گلے پیری و شباب
 یوں برجھیاں تھیں چار طرف اوس جذاب کے
 جیسے کرن نکلتی ہے گرد آفتاب کے
 گھوڑے پہ تھا شقی کہ پہاڑی پہ دیوتا
 مشکیزہ تھا کہ شیر کے منہ میں شکار تھا
 گزبن گیا تھا راہ خدا کی زمین کا

The language Mir Anis has used is certainly the standard Urdu. Besides the simple and eloquent Persian and Arabic words he has used many Hindi words and allusions. Here are a few specimens of it.

جب اٹھ گئے بازار سے گھٹ تو ہم آئے
 جوہر نہی کہ پہنے تھی دلہن پھولوں کا گھنا
 دہنیں پچھڑیں خال پہ کھاتی تھیں کر کے بین
 ارجن بھی جس سے سرہم کے گوشہ میں ہو نہاں
 دیسے کوئی بھونچال میں گھر چھوڑ کے بھاگے
 تینچکی سی زباں چلتی تھی فقرے تھے غضب کے

Here are some specimens of his true picture of material objects in poetic expressions:—

Description of sword:—

دلسوز - شعلہ خو - شرر انداز - جان گداز
 لشکر کش و شکست رساں و ظفر نواز
 خونخوار - کج ادا و دل آزار و سر فراز
 حاضر جراب - تیز طبیعت - زباں دراز
 سچ اسکی ہے پسند جہاں گو ساجی نہو
 معشوق پھر نہیں کہ جو اتنی کجی نہو
 زیبا تھا دم جنگ پر یوش اوسے کہنا
 معشوق بنی سرخ لباس اوسنے جو پہنا

اس اوج پہ وہ سر کو جھکائے ہوئے چلنا
 جوہر تھے کہ پہنے تھی دلہن پھولوں کا گہنا
 سیب چمن خلد کی بو باس تھی پہل میں
 دھتی تھی وہ شبیر سے دولہا کی بغل میں

Description of horse:—

وہ جست و خیز و سرعت و چالا کی سمند
 سانچے میں تھے ڈھلے ہوئے سب اسکے جوڑ بند
 سم قرص مہتاب سے روشن ہزار چند
 نازک مزاج و شوخ و سیہ چشم و سر بلند
 پتلی جدھر سوار نے پھیری وہ مڑ گیا
 اترا براق بن کے پری ہو کے اڑ گیا
 سمٹا - جما - اڑا - ادھر آیا ادھر گیا
 چمکا - بھرا - جمال دکھایا ٹھہر گیا
 تیروں سے اڑ کے برجیہوں میں بے خطر گیا
 برہم کیا صفوں کو پرے سے گذر گیا

ضرورت تھی نعل کی کہ سروہی کا وار تھا * گھوڑوں کا تن بھی ڈاپ سے اوسکے فگار تھا

His mind is rich in ornaments, images and after-thoughts, and it seems that "God has vouchsafed to inspire him that he might fulfil his duty as a poet" and be able to immortalize the greatest sacrifice ever made in the world at the altar of love and devotion for the sake of truth, and religion, and "to celebrate the victorious agonies of martyre" and the deeds of chivalry and courage. Maulvi Ali Mian 'Kamil,' a scholar and renowned poet and Marsiya-writer of Lucknow, had selected 12 Marsiyas of Mir Anis as best of the whole lot, and used to say if Anis were to stand and claim

"فاتو بمردثیة من مثله"

'Is there anyone who could compose a Marsiya like any one of these 12.' None among the Urdu poets had the courage and audacity to answer in affirmative.

Although my mind recoils from the audacity of attempt, yet sense of critical duty pricks me, to say that even Mir Anis is not an exception to the general rule "To err is human." His work is not free from flaws. He undoubtedly made mistakes for which it can be said that natural resource and spontaneity cannot always yield to superfluous conventions

and rules. And the fault is not uncommon in the world of poetry. Even Shakespeare and other eminent poets stand guilty of more serious charges.

Some people are apt to charge Mir Anis with Anachronism saying that he has described the tragedy at Karbala more in the fashion and manner of his own time than those of Arabia. Let me tell them that he was not translating any Arabic Elegy but composing one on original lines in Urdu language. The object of which was to give a description of the events that took place and to make the tragic portion so pathetic as to move the audience. The human nature all over the world is the same. A tragic event would not fail to move the heart provided that it is expressed in words suitable to the occasion. The *Marsiya* were to be recited to the Indian Muslims who had, ages before, left their native country and settled in India. Some of the local custom and usages of their native land had lost their force on them and were no more than a half-forgotten dream. If Mir Anis had described the events after the fashion of Arabia it would not have impressed the audience so much as it does now. Things are rightly expressed, understood and realized when spoken in simple, familiar and homely way. In order to strengthen my argument I will quote an instance from *Quran Majid* which is binding on all Muslims in whichever part of the world they happen to be.

In giving a description of the doomsday the *Quran* says (It would be a time) when the pregnant she-camels shall be abandoned or shall be rendered useless (*Sura LXXXI "The Folded up" Mecca, Translated by Rev. J. M. Rodwell*). The Arabic Text runs thus :

وَإِذَا الْعِشَارُ عُطِّلَتْ (بَارِئُ عَم ٣٠ سورة التكاوير ٨٠)

Now why she-camel is particularized here? If it is not with reference to local condition of Arabia where camels are adored as rare wealth and where she-camel, when pregnant, is highly prized and specially looked after. The description of doomsday is for all Muslims and not for handful men of Arabia. Camels may be anything to an Arab but they have not much value for an Englishman or an Indian. But the meaning of the verse is clear. She-camel has been pointed out simply to make the narrative effective for the Arabs. For other Muslims there are other verses following the one just quoted and even if there were none other Muslims could have understood the meaning of the

verse quoted with reference to the local condition of their own country bringing some other object to bear an analogous parallel with camel. In the same way I do not think Mir Anis is to be blamed if he has described the tragedy of Karbala after the fashion and manner of his own time in order to produce desired effect on the audience.

Besides, Poetry is a mirror in which the society of the poet's time is very clearly reflected. A poet cannot venture to depict the society of other country of which he has but partial knowledge without exposing himself to the danger of serious objections; for instance, an Indian poet cannot give a true picture of the battle of Waterloo any more than an English poet can give one of the battle between Kurus and the Pandoos. Surely both these poets with all their attempt cannot altogether avoid describing the battle according to what they have seen in their own time and country. And the practice is not uncommon. Milton in his Epic, the *Paradise Lost*, has depicted the conference of Satan and his followers very much according to what he saw in his own time in the Parliament. The very idea of conference was the outcome of the Democratic Government. The compositions of the poets of the east always smell of the influences of the despotic Government. In Shakespeare's *Macbeth* and *Midsummer Night's Dream* there are imitative realities of poet's own inventions. These poets could not have done otherwise. I do not see any flaw if Mir Anis has done the same.

The adherence of Mir Anis to original source of the great tragedy justifies me to say that he has only converted the historical text into poetry and has produced the most effective composition possible. He has made the truest history and the freest poetry at once. He has often taken a few links of the great chain of historical events and has, with his poetic imagination and resources, turned them into a full chain of events by supplying other links of external arrangement of natural probabilities and of the artifices of conversation, and uniting them all in a close conformity and compact unity. By doing so he has only made every part of the tragedy look brighter than what it would otherwise have been. This gives still more credit to him as a great poet. Thus we see that Anis has raised the level of *Marsiya* from earth to heaven. It is his life work and no doubt his efforts have been crowned with success for *Marsiyas* have been universally accepted as the highest pitch which Urdu poetry could have ever aspired to reach.

THE HIERARCHY OF VALUES

By MR. A. C. MUKERJI, M.A.

The power of clear thinking is a distinctly human prerogative which, however, like every such exclusive right, has its attendant responsibilities and risks. Animals that are incapable of rising to the reflective level in their acquaintance with environments have neither the privilege nor the risk. Man may raise himself up to a divine status or fall headlong down to the position of inhuman beasts, while the animal life is more or less exclusively chained to a fixed position hemmed in on all sides by the promptings of isolated impulses and instincts. This all-important distinction between man and the animals has been obscured by the naturalists who seek to explain human as well as animal behaviours in accordance with the self-same principles. The confusion was set on its motion by Malthus, the famous author of *The Essay on Population*, and though he advanced his principle of struggle for existence as a mere tentative hypothesis, it soon grew into a wonderful master-key with which the later naturalists sought to unlock the mystery of existence in general. The degradation of man to the level of the animals thus came to receive scientific sanction, and all talks about the peculiar gifts and endowments of humanity reduced themselves to a groundless anachronism. The result at the present moment is that our ignorance of man is fast increasing with the progress of our knowledge of the rats and the chimpanzees.

The critics of naturalism have frequently emphasised the lacunae in the naturalistic explanation of human behaviours and social intercourse. The principle of struggle for existence, it has been pointed out, may well account for all behaviours in the animal world, but its application to the sphere of human conduct must be accompanied by all the difficulties that follow in the wake of universalising a partial principle. Man is a thinking animal at the least, and this places an unbridgeable gulf between him and the animals. He has to live, not by destroying, but by preserving the life of his fellow-members or fellow-citizens. Animals may secure its individual well-being through an entirely selfish campaign against other animals, but man has to seek his own good in the good of others for which he is often called upon to go through a painful

course of self-less sacrifice. He must, in other words, die to live (as put by a western thinker), he must enjoy by abandoning (as prescribed by an Indian sage).

But the naturalistic bias, in spite of its defective logic, has an alluring simplicity when pressed into the service of a reformer or a philanthropist. What, for instance, is apparently more clear and convincing than the vision of an Independent India in which the supply of wealth is regulated by the needs of each individual, where education is primarily organised on the basis of the elementary conditions of human existence, and which provides ample opportunities for the cultivation of freedom in all spheres of life? This is no doubt a perfectly clear and simple ideal worth any amount of sacrifice on the part of a patriot. The crux of the creed, however, begins to be felt when the quest proves to be as elusive as the Holy Grail. As man's physical existence has for its indispensable support a spiritual background, the policy of manufacturing bands of efficient fighters in the struggle for existence cannot be followed to any appreciable length without converting the nation-building activities into a series of futile experiments. Here are the hazards and imperfections of a partial vision which are writ large on the pages of the history of human achievements. In the hierarchy of values, each has a definite place, and a higher value is easily recognised by its capacity for effecting a harmonious development of all sides of human nature. On the other hand, the lower position of a given value manifests itself in the contradictions arising out of its exclusive pursuit. The so-called sanctions of morality indicate clearly, though on a small scale, the paradoxes of a partial vision; and for other illustrations one may turn to the conduct of the thief or the lewd. Police vigilance and the long-stretched arms of law, for instance, have an anomalous position in the robber's universe of desires; he would fain see them abolished or rendered ineffective at the time of breaking the elementary principles of civil rights while desiring their effective enforcement as soon as the spoils are his own property. A society would surely be shaken to its foundation if its members had set before themselves such a self-contradictory ideal.

The robber's example is but an extreme case to illustrate the inconsistent nature of an ideal of conduct sufficiently low in the scale of values. But what is true of this is essentially valid in the case of every other ideal that belongs to the lower rungs of the ladder. A lower ideal draws its

life-blood from the higher ideals, and, consequently, becomes self-contradictory when abstracted from its affiliations with them. In other words, every lower ideal presupposes the possibility of an unobstructed functioning of the higher ideals, and, when pursued exclusively, it sets afoot a disintegrating force which must ultimately lead to the destruction of that very social order upon which it lives. Even the pilfering propensity presupposes for its satisfaction an established order of society in which the members accept a definite system of rights and obligations; and no society can prosper by following the short-sighted policy of encouraging the pilferer. It is this characteristic tendency of a given ideal to develop contradictions when divorced from those occupying a higher place in the hierarchy of values which alone provides a comprehensive principle of explanation in matters of social and political changes. The confusion of liberty with licence, of democracy with anarchy, of freedom with lawlessness, is but the natural offspring of a false and imperfect grasp of these dialectic affiliations of the various ideals of conduct.

There is ample evidence in the current course of world-events to justify the hypothesis that ours is an age of confused ideology; and as India is a part of the world, she is quietly submitting to the influence of a false ideological perspective. To a certain extent this is perfectly natural; for the world has long outgrown the protoplasmic stage, and the nations of the world, like the limbs of the human body, are entering into organic relations with one another, the result being that any serious change in the life of one nation produces wide-spread repercussions throughout the rest of the world. India could well live an atomic life and follow the policy of self-seclusion, unaffected by the economic or political changes in the other nations of the world, when the international relations were at a cruder stage of development; but the days of atoms are numbered as much in modern society as in modern physics.

The ideology underlying the schemes of social reconstruction of contemporary India is symptomatic of the development of international relations. Its emphasis on the purely physical needs of man, its conception of human emancipation and individual freedom, its ideal of reformed education,—these are clearly indications of the extent to which one nation can influence another. The real source of these ideals of social readjustment and reformatory measures is to be found in what is known as the economic interpretation of history, that is particularly associated with

the names of Karl Marx and his collaborator, Engels. Interpreting social changes and political revolutions as the inevitable results of the modes of production and of exchange prevailing in a society for the time being, and finding in the social behaviours of men a universal operation of the principle of exploitation, Marx envisaged an ideal order of society in which there will no longer be classes or class antagonism and where social evolutions will cease to be political revolutions. The different stages of social evolutions, which are said to be slave-holding societies, feudalism, capitalism and communism respectively, are conditioned by class antagonism and class struggles arising out of economic factors alone. And it is only with the establishment of communism, it is urged that the roots of revolution will for ever be eradicated, and there will then be no necessity for bringing about evolution through political revolutions.

The affinity of this interpretation of social evolution and political changes with the naturalistic method of explaining the higher in terms of the lower categories is too obvious to be missed. The struggle for existence is still the principle of explanation, and the relation between man and man is conceived on the analogy of the natural relation between one animal and another; class struggles and exploitation springing from the necessity of satisfying physical needs, such as food, clothing and shelter, are taken to be the most powerful and all-sufficient conditions of social and political changes. It is, in the language of philosophy, '*dehātmanvāda*' in excelsis.

Anything like a detailed criticism of the economic interpretation of history would be uncalled-for in view of all that has been already done in that direction. Materialism, as a theory of the universe and as a doctrine of human conduct, is now an altogether exploded position which no present-day thinker of real insight accepts as a tenable position at all; and if our ideals of social and political reforms are still vitiated by the fallacies of materialism and naturalism, the explanation is to be found in the pre-occupations of the best minds with objects of immediate interest which leave little time for clearer thinking and far-sighted policies. As man is a thinking animal who is capable of putting before himself a future good and of consciously trying for its realisation, there is in him an immense possibility for either raising or degrading the general status of the social or political organisations under his control, and whether it will be a process of levelling up or

levelling down will depend upon the character of his philosophy of life. That the policy of providing for the satisfaction of bodily wants by starving the spirit within is responsible for all the miseries and unhappiness of life is the clearest lesson of history. Similarly, an educational system that is primarily directed to the economic amelioration of the people without aiding the education of what is best in human nature must lead to national deterioration; for, to keep a nation incapable of developing a taste for and living up to the higher ideals of life is the surest way to its spiritual death. It is then a mere corpse without life, and a lifeless body must decay. The stability and growth of the social framework depend ultimately upon the intellectual and moral virtues, such as love of truth, sympathy, benevolence, recognition of rights and obligations, etc. On the other hand, hatred, jealousy, narrowness, impatience, selfishness, etc., eat into the vitals of the social organism. These truisms have been well tested in the laboratory of Time, and so any innovation that would imply the slightest departure from them must be fraught with the gravest consequences to the future of a nation.

The ideal of a social order in which the division of classes will cease to exist is incompatible with the laws of human nature and opposed to the principles of evolution. Growth is a process from homogeneity to heterogeneity in every sphere of existence. The remedy for class conflicts is to be sought, therefore, not in the abolition of classes, but in the liberating of the integrating forces of human nature. And this is possible only through the cultivation and development of the intellectual and moral virtues. When the intellect is so developed as to comprehend the self-contradictory nature of the lower ideals, and when the sentiments are so educated and the motives are so purified as to identify the individual with the common good, the classes will cease to oppose each other, and the group interests, in stead of obstructing each other, will find satisfaction in the wider interest of the nation as a whole. It is, therefore, the much-maligned higher education which holds the key to national progress and harmony.

ASIA IN MATERIAL CIVILIZATION

By DR. R. P. TRIPATHI, M.A., D.Sc.

The prejudice in favour of national history, and the frauds committed under the title of world history, the fantasies indulged in under the cover of the philosophy of history, and finally the rigid technique and rigorous requirements of the scientific method of history have combined to prevent even the educated and cultured men from getting a synthetic view of the contributions made by all groups, peoples and nations towards civilization. Civilization is not a product of any particular people or peoples or a monopoly of any state or continent. It is the cumulative result of the endeavours of all human beings—at the one end of which stand the so-called barbarians or primitive men, and at the other the Eur-Americans.

The roots of civilization go back to the very dawn of humanity. The more we know the stronger grows upon us the conviction that human civilization is one continuous, if not quite unbroken, stream the origins of which can be traced almost clearly to the times when human beings could hardly be distinguished from the apes. The researches of the later nineteenth century and particularly of the twentieth century are leading the well-informed students of history and culture to think that our heritage of civilization owes all its essentials to those whom the modern man ungratefully styles as 'savages'.

To the heritage from the "savages" the Stone Age added most vital discoveries which gave an extraordinary impetus to civilization. It discovered for us fire, and invented tools and weapons, and laid the foundation of those crafts and economic structure which survived to the modern era of the Industrial Revolution. Quite early in this age they created for us two most precious assets of our civilization—painting and sculpture. The relics of sculpture and painting of this period have startled many a scholar and even created serious doubt about the interpretation of history in terms of progress. In the later stages they discovered for us agriculture and domestication and breeding of animals, architecture, transport, pottery, weaving and medicine.

Indeed a recent scholar of comparative history and culture has gone to the extent of asserting that in the primitive culture "we find every element of civilization except writing and the state." All the modes of economic life, the essential factors of political life, the fundamentals of morals, the bases of religions, language, literature, arts of even science were discovered and established after a travail of thousands of years and experiments.

With the probable exception of metals, writing, and the state all the bases of historical civilization were laid.

The Stone Age was succeeded by a transitional period during which men discovered metals like copper, bronze and iron. No particular people can be credited specially with these discoveries for the relics of this age are widely found in Asia, Europe and America. One vital element of civilization, namely, the art of writing, was also created. Starting with the "Mediterranean Signary" it developed in Elam, Sumeria and Egypt as "heiroglyphics" and finally took the form of Alphabets of 24 consonants probably as early as 3000 B.C. The earliest example of it is found in Sinai at Seralit-el-Khadim, which Sir William Hinders Petrie places about 2500 B. C. The development of writing and the use of metals quickened the pace of culture.

Archæology and history have brought to light some civilizations which were lost in oblivion, but there might be many a civilization which has not yet come within their purview. Who can say what treasures are hidden under the stony surface of the earth and under the sea and how many discoveries like those of Crete, Sumeria and Yucaton, Mohanjodaro may yet be made in the future. The memory of "Atlantis" has survived from Plato to Schliemann, while the Polynesian tradition has not yet lapsed from human memory.

When the "savages" and the people of the stone and copper age made such substantial contributions to culture it is no wonder that Asia, the largest continent, should have enriched the civilization of mankind in a measure greater than our present knowledge suggests. Indeed, it is now realized the Greek and Roman civilization, which were erroneously supposed by Sir Henry Maine to be "the source of modern mind" were based on the Asiatic civilization, and broadly speaking were the western projections of the Asiatic mind. Although our knowledge of the ancient civilization of Asia is incom-

plete and even sketchy yet it is good enough to enable us to conjure in our imagination an outline of the glorious achievements of our great continent and of the enormous contribution made by it to human culture and civilization.

It is well known that the four great religions of the world—Buddhism, Hinduism, Christianity and Islam—had taken their birth in Asia. Their vitality and utility has been amply proved by the test of Time, and by the allegiance of billions of human beings. 'There is no parallel to this fact in the history of Europe either before or after Christ. Through these religions Asia has offered a message of hope and solace to mankind even during the darkest periods of its history. Whatever might have been the defects of religions it cannot be denied that these contributed substantially to the elevation of human character, fostered and strengthened social instinct and order, and kept within control the brute in man. They brought out some of the noblest and best qualities of human mind and heart, and inspired countless men with the ideals of brotherhood, selfless service and sacrifice.

In the wake of religion came philosophy and ethics, mythology and poetry. Most of them were integral parts of religion but some were quite independent of it. Among the latter were ethical doctrines like those of Buddha, Confucius and other Chinese thinkers. The sense of right and wrong, of order and discipline, social justice, manners, charity and moral consciousness were created and fostered long before Greece and Rome had begun their life.

Mythology enriched the human fancy and inspired poetry in a measure equalled only by the passion of love.

In the field of economic organization the contribution of Asia has been as substantial as in politics. The first and foremost work was the use of plough and sledges for agricultural purposes. Egyptologists like Breasted and Elliot Smith opine that agriculture with plough was the work of the Egyptians but Schweinfurth and other more recent writers think that altho' agriculture began in the New Stone Age the use of plough drawn by oxen appeared in Sumeria earlier than in Egypt where it seems to have received further development. Agriculture was further developed by the Sumerians when they established their famous irrigation system as early as 4000 B. C. The oldest

wheeled vehicle has been discovered at Kish which suggests that land transportation began in Sumeria. The system of transportation by water was already known to them. Inspired by the Indus civilization which may reveal a thousand wonders and may snatch the credit for many an achievement attributed to the inhabitants of Mesopotamia and Egypt.

Sumeria started the use of gold and silver as the standard of value, invented the system of contract, the credit system. These three elements proved to be of the greatest importance in the evolution of the economic life of the human society. Indeed the modern economic structure is based almost entirely on them. Then came the Babylonians who introduced or at least taught Europe thro' the Greeks the use of weights and measures, and developed the system of finance. The earliest example of official coinage is found in Assyria of 700 B. C. Besides gold and silver she used lead and copper for currency. In the 6th century before Christ Croesus, the King of Lydia in Asia Minor, minted coins of excellent design and gave the state guarantee at their face value. It was the first regular system of national currency. The bimetallic ratio in modern currency was originated by the Persian King Darius. Persia also made original contribution in the improvement of communication and transport by building great roads and throwing substantial bridges across the rivers. The contribution made by India will be assessed properly when the glory of the Indus civilization is fully unveiled. The coins discovered at Mohanjo Daro are believed to be the oldest yet known. There are reasons to think that the excavations in Western India and southern Persia will spring many a surprise, upset many theories about the antiquity of civilization and the origins of institutions and modes of living and organization. The ancient Indians of the pre-Maurya and Maurya period had lifted commercial morality to a very high level.* The cultivation of cotton began in India earlier than anywhere else. This wonderful commodity was destined to produce a remarkable change not only in the textile industry but in the Industrial life of the modern world. India was the leader of the whole of Asia in almost every line of manufacture—wood work, ivory work, metal work, bleaching, dyeing, tanning, soap making,

* The Indians are believed to be the first people to mine gold.

glass blowing, gunpowder, firework and cement, etc. Her manufactures were widely admired. Rome alone imported the articles of luxury to the value of about a crore and 70 lacs of rupees. Her wares were in demand in Africa, Southern Asia and even in China.

Before the 18th century A. D. there was no country in the world where industry flourished so much as in China. Their silk industry was well established several centuries before Christ. It was from them that about 552 A.D. the Nestorians carried the art of breeding silkworms to Europe. The various professions were organized into guilds after the Indian fashion. These guilds were self-governing in the Industrial organization. They made their own laws, enforced them by their own authority, settled the disputes between the employers and employees through the arbitration boards consisting of equal number of representatives of the two classes.

The use of certificates of indebtedness was begun by the Emperor Hsien Tsung early in the 9th century. By the end of the 10th century it developed into a national paper-currency. These notes were made by block-printing methods. The Persians adopted the paper currency from the Chinese about the end of the 13th century. It was not till 1656 that Europe could issue its first paper currency. The Chinese were among the very first people who knew the use of gunpowder. Gunpowder and the use of compass, which was known to the Chinese in the 12th century, had influenced the arts of warfare, politics, discoveries and commerce and the course of civilization. Equally far reaching was their discovery of the use of coal for fuel purposes. As early as the second century B.C. the Chinese mined coal and used it as fuel.

Though the Egyptians could make paper and ink it was in 105 A. D. the Ts'ai Lun discovered the method of making cheaper and lighter paper from barks, rags, and hemp. They developed it almost to perfection. From them the Arabs learnt this art in the 8th century and carried it to Europe in the 13th century. Besides paper they manufactured ink from lamp black. They could also make red ink as early as the third century B. C. As if to complete their work of providing the most powerful machinery of civilization the Chinese discovered the craft and art of printing. They started with stone and by the 6th century they used woods.

The contribution of Asia to political thought and organization has not been as widely appreciated as it deserves. Modern researches in the ancient civilizations of Asia in general and particularly of China have brought into light definite facts to support the view that political thought and institutions had reached a high stage of development in Asia and had fully anticipated the political philosophy of Europe. In fact from Plato to Rousseau hardly anything was said that was unknown to Asiatic thinkers. From family and village to mighty empires there is hardly any institution which was not experimented upon. The Sumerian civilization which was considered to be old as early as 2500 B. C. had created the first code of law and the first states and even Empires. The Babylonians are credited with having prepared the first "great codes of law" known to history, long before Solon was born or the ten tablets of Rome were discovered. Hammurabi (2123-2084 B.C.) in the preamble of his Code had enunciated for all times to come that the object of the Government is "to prevent the strong from oppressing the weak, to enlighten the land and to further the welfare of the people." The art of local or provincial Government was begun by the Assyrians and through Persia was transmitted to the Macedonians and Romans. Ancient Persia presented to the future generations an imperial organization which has been pronounced to be one of the most unique and competent in history. The King, the Council of aristocratic advisers, High Court of Justice with seven judges, a chain of local courts, legal procedure, lawyers or "the speakers of the law", a well controlled provincial administration and bureaucracy, were the gifts of the Persians to the Macedonians and Romans. They also realized the virtues of toleration. They safeguarded the religion, morals, laws, customs, language and even coinage of their multifarious subjects. The Imperial Government of Persia was liked more than their own national Governments by many a conquered people.

The Mesopotamian polity had not been able to secure the right of the individual against the state. Their conception of the state did not contemplate it. But Judea struck a new note when Amos and Isaiah fervently denounced the callousness of the rich and powerful and raised the voice of the poor to a point where it almost gave birth to socialism. Social consciousness takes here a definite form and

contemplates a state of things when no war or poverty shall disturb the peace and brotherhood of man.

Nor did India lag behind. Her chief contribution seems to be the art of administration through well defined departments conducted by a well graded hierarchy, the art of Municipal government which caused amazement as much to the ancient Greek writers as to the modern historian. Even V. Smith doubts if any of the ancient Greek cities were better organized. The structure of Imperial government at the centre, in towns and villages the smallest units, was complete, well organized and on the whole efficient. The principle of toleration which was a matter of expediency with the Persians was made an article of faith and the soul of the political creed with Asoka who has been ranked about the greatest King in his own way that the world has ever produced. India has created an aristocracy of birth and culture in the Brahman caste which without the aid of wealth, military and political power, has proved to be the most enduring of any aristocracy known to history.

The contribution of China to political thought was perhaps greater than that of any Asiatic country. "This oldest of and richest of living civilizations" has discussed with earnestness greater and deeper than any other people the problems of practical and political ethics. She evolved a system of government, social organization and a social ethics which has endured longer than any other known to history. Prima facie this phenomenon alone places the Chinese among the greatest builders of social order. Without claiming perfection for any human device—social, political or economic—one may say on the authority of competent writers that China had evolved almost an ideal state in which the virtues of democracy and aristocracy were sweetly blended, in which government governed the least, and in which every one irrespective of rank enjoyed the equality of opportunity in the best sense of the term. She evolved a structure of government which each district enjoyed almost a complete autonomy both politically and economically. It is admitted that during the Chou period (1122-255 B.C.) China had established a civilization which has hardly been equalled by any ancient or possibly modern country of the world.

The Chinese were not obsessed with theology, religion and metaphysics but invested their intellectual gifts in finding out the way

of good life or rather living and discussed very rationally social and political ethics and morality. Confucius had laid down that on the finer qualities of the individual depends the strength of the family and ultimately the strength of the state or the Empire. He had conceived the world as a republic to cultivate universal peace where power was wielded by the elected men of "talents, virtue and ability." In his state the young were to be tended with solicitude and care, the youths and the middle aged were not left without employment and the old without adequate provision. Mo Ti also reached the same conclusion that the solution of the social (including the political and economic) problem lay in universal love only. This was not a Utopia which is born and buried in imagination. It was a scheme which since the rise of the Hun dynasty (3 cent B.C.) dominated the thought of China and moulded the social and political institutions in a manner unparalleled in the history of the world.

With the philosophy of Confucius at its root the thought of China spread out its branches in all direction and covered the ground which socialism tries to survey in the modern world. The views of Confucius were questioned, criticised but emerged out triumphant in their essence though not in their old form. Mencius (372-289 B.C.) pointed out that the essential condition for the success of democracy was the education of all, but democracy of the ignorant was a misfortune. Although he recognized the right of revolution but he coldly rejected the demands of Hsïe-Ssing who demanded the dictatorship of the proletariat.

Hobbes and Rousseau were anticipated by the Chinese thinkers almost four centuries before Christ. Mencius (372-289 B.C.) believed that human nature was essentially and fundamentally good, while Hsiin-tze (d 275 B.C.) maintained energetically that the nature of man is evil. The Chinese philosophers thought deeply about the law of Nature and found it in the divine Tao. The cry of "back to Nature" rang through the whole of Chinese thought, and Chung-tze (born 370 B.C.) declared a peaceful crusade against machinery, ownership of property, gold and pearls. The greatest of Hun Emperors Wu Ti (140-87 B.C.) actually experimented with socialism and established the national ownership of natural resources, a national system of transport and exchange, controlled trade and regulated

prices thus eliminating the middlemen; and provided employment to the unemployed. Before this bold experiment could strike firm roots a series of natural calamities—floods and droughts—uprooted. But the ideas and ideology did not die. The Sung dynasty revived it. The versatile minister and earnest reformer Wang An Shih (1021-86 A.D.) desired to give to the state the entire management of commerce, industry and agriculture. He provided pensions to the aged, the unemployed and the poor. Again the experiment failed for a variety of reasons.

One of the most remarkable features of the Chinese system was the organization of the system of examination for public service. The examinations system and method of recruitment of officials was a marvel of ingenuity. It began in the Hun dynasty (3rd cen. B.C.), was fully established by the Tang dynasty (618-905). It was aimed "to reveal not knowledge, but judgement and character." It was independent of religion and state support.

Last but not the least was the contribution of Japan to political organisation and evolution. Unlike the Chinese the Japanese were betrothed to feudal system. In the 16th century Iyeyasu, an able dictator of Japan, established a system of feudalism which has been judged as "the most perfect form of feudal government ever known." "The basic principle of Japanese feudal society was that every gentleman was a soldier and every soldier a gentleman." The 'Samurai' sword-bearing man was one of the most interesting factors of the feudal structure of Japan. Their code of honour (Bushido), their contempt for material enterprise and gain, their hard and frugal living, their capacity for endurance, their unflinching loyalty and regard for promises and their fearlessness produced a type of men at the service of the state which threw into shade the Babylonian, the Spartan, the Roman, and the Rajput soldiers. This type proved to be the backbone of Japan during the feudal age and its traditions in our own day have raised the land of the rising sun to the leadership of the great continent of Asia.

The speed with which Japan has adapted herself to the needs of modern life, the aptitude for organization—be it political, military or economic by itself—is as much a source of wonder as it is an object lesson to the whole of the civilized world. When a small state like

Japan could in an incredibly short time “end the rule of Europe in the East,” what wonder would be there if the rise of China and India changed the entire outlook and structure of modern civilization which the Industrial Revolution of Europe has imposed upon the world.

THE SOURCE OF THE SAKUNTALA STORY AND ITS TREATMENT BY KALIDASA

By MR. K. C. CHATTOPADHYAYA, M.A.

महाकालं नमस्कृत्य शाकुन्तलप्रसङ्गतः ।
भारते कालिदासे च कथाभेदो विमृश्यते ॥
पुराणे पाद्मकाख्यात आख्यानं वङ्गसञ्चरम् ।
शाकुन्तलापरं यद्धि न तन्मूलं महाकवेः ॥
अतो वै साम्भवं पर्व महाभारतसंश्रितम् ।
शरणं कालिदासस्य भेदाश्च कारणात् कृताः ॥
दुध्यन्तो भारते काव्ये शाकुन्तलापरिग्रहम् ।
स्मरन्नप्यतथाभाषी धर्मवृत्ताद् भुवं च्युतः ॥
प्रख्यातो भारतो वंशः प्रावर्तते यतो नृपात् ।
तत्पिता लोकगर्हाहं स्वप्नेऽपि कथमाचरेत् ॥
इति चिन्तासमुद्भिन्नः कालिदासस्तथा कथाम् ।
कविर्विवर्तयामास धर्मलोपो यथा न हि ॥
शाकुन्तलसमाख्याते नाटके नायकः किल ।
धीरोदात्तगुणैर्युक्तो लोकशिखाप्रवर्तकः ॥
अतोऽसौ मुनिशापेन विस्मृतिं गमितो बलात् ।
प्रत्याचष्ट प्रियां भार्यां स्मृतिलाभे त्वपीड्यत ॥
पुरा च शापयोगेन स्मृतिलोपं गतोऽप्यसौ ।
आसीच्छकुन्तलाध्यायी महिषीविमुखो यतः ॥
अज्ञानेन कृतोऽधर्मः यः स्वल्पोऽपि निषेधतः ।
लब्धवान् क्षालनं तस्य विरहव्यथया चिरम् ॥
ततोऽसौ प्रियया नार्या सिद्धलोके समागतः ।
पुत्रं सर्वगुणैर्युक्तं सम्प्राप्य चिरनिर्जितः ॥

The *Abhijñānaśakuntala* of Kālidāsa has been universally recognised as one of the best dramas in Sanskrit literature and has got an assured place among the world's best books. A careful comparison with

the other two dramas of Kālidāsa leaves no doubt in our minds about its being the maturest production of the poet in the field of dramatic composition. The readers will readily recall the well-known encomium bestowed on this work by the German poet Göthe. I shall here discuss only the manner in which Kālidāsa has improved on the story of Śakuntalā as handed down by older tradition and show his great originality and artistic sense in this matter.

Sanskrit dramaturgy demands that a *nāṭaka*—the most regular type of Sanskrit dramatic composition—should have a plot already known to the audience. The author of a *nāṭaka* has, therefore, to derive his story from old history or accepted legend. Kālidāsa wrote his *Abhijñānaśakuntala* on the legendary story of Śakuntalā and Duṣyanta. Śakuntalā is referred to in the *Śatapatha Brāhmaṇa* XIII. 5.4.13 as an *apsaras* (celestial nymph) and as having borne at Nāḍapit (?) Bharata, who conquering the earth performed more than a thousand Aśvamedha sacrifices. In an earlier passage (XIII. 5. 4. 11) Bharata is mentioned as a son of Duṣyanta. The whole story of Duṣyanta and Śakuntalā is given in details in the Sambhavaparvan of the First Book of the *Mahābhārata*, chapters 62—69 (edition of the Bhandarkar Institute—in the Bombay edition the chapters are 68—74).¹ A slightly shorter version but with certain details (like the curse of the Durvāsas and the re-union through the recovery of the ring) agreeing with Kālidāsa's story is found in the Svargakhaṇḍa of the *Padmapurāṇa*, Bengali recension, chapters 1—5. The whole *khaṇḍa* is lacking in the Ānandāśrama edition of the *Padmapurāṇa* but that the Purāṇa did possess a Svargakhaṇḍa is clear from the Ānandāśrama text itself: cf. its Bhūmikhaṇḍa, ch. 125, verses 48-39, Vol. I, p. 380. But we do not know whether the non-Bengali recensions of the Svargakhaṇḍa also contained a Śakuntalā story as in the Bengali text or not.

It has been generally accepted that Kālidāsa derived his plot from the *Mahābhārata*. Bihari Lal Sarkar, on the other hand, made him indebted to the *Padmapurāṇa* in his Bengali book *Śakuntalārahasya* (Calcutta 1896) and that was also the view of the late Professor Moritz

¹ The references to the *Mahābhārata* given below will be to the Bhandarkar Text of the Ādiparvan first and then to the Bombay text (generally in brackets). Dr. V. S. Sukthankar, the editor of the former Text, spells the name of the King as Duṣṇanta as in the *Śatapatha Brāhmaṇa* and not as Duṣyanta.

Winternitz² and of his pupil Dr. Haradatta Śarmā.³ This was, however, not the view of Horace Hayman Wilson who took the story in the *Padmapurāṇa* as posterior to and influenced by Kālidāsa.⁴ I have no space here for a full discussion of the problem but I may make a few brief remarks. A careful study of the Śakuntalā story in the *Padmapurāṇa* forces on us the conclusion that the Purāṇa knew Kālidāsa's drama very intimately. The *Padmapurāṇa* gives details which we would not ordinarily expect in a Purāṇic story. Śakuntalā's friend Priyamvadā, obviously Kālidāsa's original creation, suddenly emerges from verse 22 in chapter 2, though earlier no name was given to the *sakhī* who speaks in verses 34—43 of chapter 1. Kālidāsa had named another friend of Śakuntalā, Anasūyā, but the more vivacious Priyamvadā had naturally caught the fancy of the author of the *Padmapurāṇa*. We also find Gautamī, Śārṅgarava and Śāradvata in the *entourage* of Śakuntalā when going to the place of Duṣyanta and also Priyamvadā who had attracted the author so much. Even the incident of the merchant dying without a progeny is narrated in chapter 5, verses 36 ff. ! For Kālidāsa's originality in one idea expressed in this connexion in the *Abhijñānaśakuntala*, VI. 25,⁵ reproduced in the *Padmapurāṇa*, Bengali recension, Svargakhaṇḍa, chapter 5, verse 45,⁶ compare his *Raghuramśa*, I. 67.⁷ Kālidāsa in both the places speaks of only the *water* offered to the *pitṛs* but the Purāṇa

² *Indian Antiquary*, 1898, pp. 134—136, *Geschichte der indischen Literatur*, Vol. I, p. 451 (English translation, p. 540), Vol. III, p. 215 and Foreword to II. Śarmā's *Padmapurāṇa and Kālidāsa*.

³ *Padmapurāṇa and Kālidāsa*, Calcutta 1925, Introduction.

⁴ *Works*, Vol. III, p. 40. The references to the *Padmapurāṇa* here and below are to be understood as to the Bengali recension.

⁵ अस्मात्परं बत यथाश्रुति सम्भृतानि
को नः कुले निवंपनानि नियच्छतीति ।
नूनं प्रसूतिविकलेन मया प्रसिद्धं
धौताश्रुशेषमुदकं पितरः पिबन्ति ॥

⁶ अत ऊर्ध्वं मया दत्तं पानीयं विधिनापि च ।
पास्यन्ति पितरः कोष्णनिश्वासेन मलीमसम् ।
पिण्डविच्छेददुःखार्ताः पिण्डानि च तथैव हि ॥

⁷ मत्परं दुर्लभं मत्वा नूनमावर्जितं मया ।
पयः पूर्वैः स्वनिःश्वासैः कवोष्णमुपभुज्यते ॥

adds reference to the *piṇḍa* also which can hardly become heated with sighs.

The Śakuntalā story in the *Padmapurāṇa* has verbally reproduced a large portion of the same story in the *Mahābhārata*, but has interpolated here and there different details from Kālidāsa's version. In several cases the additions have disturbed the narration and led to contradictions. Thus, in chapters 3 and 4 of the Purāṇa Śakuntalā enters the scene as a coy girl as in Kālidāsa's story but finishes as the forward and garrulous girl of the *Mahābhārata*. Śakuntalā again and again makes reference in the Purāṇa to her son as if already born—as in the *Mahābhārata* story—whereas according to Kālidāsa's version which the *Padmapurāṇa* follows here he is still in the womb! In chapter 1, verse 32, Duṣyanta asks Śakuntalā about her origin, when she requests one of her friends to reply on her behalf (verse 33 *cd*).⁸ That friend recounts the story of Śakuntalā's birth in verses 34—43. The king then proposes to the friend that Śakuntalā should marry him (verses 44—47), when Śakuntalā boldly replies herself (verses 48 and 57—59) in words taken bodily from the *Mahābhārata*. The author of the Śakuntalā story in the Bengali recension of the *Padmapurāṇa* had no sense to see the contradictions and the absurdities that these additions landed him in. The two stories in the *Mahābhārata* and in Kālidāsa were quite differently conceived and they could not be mixed up without doing violence to æsthetic propriety.

The Purāṇic author has at a few places also attempted improvements on Kālidāsa's story but he has been successful nowhere. His lack of originality is manifest from the insertion without any change of whole verses from the *Mahābhārata* and we find many verbal agreements with Kālidāsa in the portions giving additional details found only in the *Abhijñānaśakuntala*. At several places statements in the Purāṇa cannot be understood without reference to the corresponding passages in Kālidāsa. Thus in place of Duṣyanta's speech to Śakuntalā

सुव्यक्तं राजपुत्री त्वं यथा कल्याणि भाषसे ।

भार्या मे भव सुभ्रोणि ब्रूहि किं करवाणि ते ॥१॥

⁸ The idea of requesting a friend to speak on Śakuntalā's behalf seems to have been suggested by *Kumārāsambhava* V, 51.

in the *Mahābhārata* I. 67. 1 (I. 73. 1) after hearing from her about her birth, in the *Purāṇa* the King says to the friend of Śakuntalā on the same occasion (*Svargakhaṇḍa*, ch. 1, vv. 44-45 *ab*):

सुव्यक्तं राजपुत्रीयं यथा कल्याणि भाषसे ।

अन्यथा पौरवाणां हि मनो नैवानुरज्यति ॥४४॥

भार्या भवतु सुश्रोणी ममेयं मृगलोचना ।

It will be noticed that the first half of verse 44 in the *Purāṇa* is practically identical with the first half of the *Mahābhārata* verse and the first half of the next verse agrees as closely with the second half of the *Mahābhārata* as is possible under the circumstances.⁹ The second half of verse 44 in the *Purāṇa* inserted between the two halves of the *Mahābhāratic* verse, cannot be justified, because the King has not said earlier that he is in love with Śakuntalā but readers of Kālidāsa will readily see in these lines a reflection of *Abhijñānaśākuntala* I. 19,¹⁰ said in a soliloquy.

It is interesting to note that the Bengali recension of the *Pātāla-khaṇḍa* of this *Purāṇa* gives in chapters 5 to 16 an account of Dilīpa and other kings of the Raghu family and of the Rāma story up to Sītā's marriage which agrees very closely with Kālidāsa's *Raghuvamśa*, cantos 1—11. This portion is lacking in the printed Devanāgarī text of this *Khaṇḍa* (Ānandāśrama edition, Vol. II) and this single fact casts doubt on the authenticity of this portion of the Bengali *Padmapurāṇa*. In any case, detailed comparison of this portion shows that here too the Bengali recension is indebted to Kālidāsa. Details that are needed in a *mahākāvya* for spinning out the story to a sufficient length or showing originality are out of place in a *Purāṇa*. The additions that the *Purāṇas* make are normally in matters of religious instruction. Anyone who has compared the *Kirātārjunīya*, the *Śiśupālavadha* and other *mahākāvyas* with their sources will understand what kind of additions these poets are constrained to make and will easily

⁹ In the *Mahābhārata* Duṣyanta addresses Śakuntalā and in the *Padmapurāṇa* her friend.

¹⁰ अस्मिन् शयं क्षत्रपरिग्रहक्षमा

यदार्यमस्याममिलाषि मे मनः ।

सतां हि सन्देहपदेषु वस्तुषु

प्रमाणमन्तःकरणप्रवृत्तयः ॥

recognise what is original in the *Raghuvamśa*. Kālidāsa has compressed where details were available in Vālmiki but has expanded and introduced new matter where the details were few. The thirteenth canto of the *Raghuvamśa* is certainly Kālidāsa's own creation and we cannot doubt that several other cantos, like the second and the sixth are his. When we find matter closely agreeing with them in the Bengali recension of the Pātālakhaṇḍa of the *Padmapurāṇa*, we cannot have any hesitation in looking upon this recension as indebted to Kālidāsa. Wilson came to the same conclusion about this portion of the Bengali *Padmapurāṇa* also.¹¹ A study of this portion confirms us in the view that the Śakuntalā story in the Svargakhaṇḍa of the Bengali *Padmapurāṇa* is post-Kālidāsean.¹²

We are, therefore, left with only the *Mahābhārata* as the possible source of the drama. The actual story in the Great Epic, divested of the long descriptions and the still longer speeches, is very brief. It is this. Duṣyanta when hunting in the forest pays a visit to the hermitage of Kaṇva. The sage is out, having gone to gather fruits in the forest and Śakuntalā offers him the rites of hospitality. The King is charmed with her beauty and enquires about her origin. On hearing that she is the daughter of Viśvāmitra, he proposes immediate marriage to her in the *gāndharva* form. Śakuntalā wants him to wait till the return of the sage but the King presses his suit. Śakuntalā then makes a stipulation that the issue of the marriage will be chosen by the King as his successor. Duṣyanta agrees, consummates the marriage and then leaves the place full of apprehensions about the sage's reaction to this affair when he will return to his hermitage and learn about all this. Duṣyanta does not keep his promise to send a retinue to take away Śakuntalā to his palace. She gives birth to a son in the hermitage who grows very big and possessed of uncommon strength and energy at the

11 *Works*, III 47.

12 I confess that I could not be convinced by what Winternitz (*History of Indian Literature*, Vol. I English translation, pp. 536-7 and n.) and Haradatta Sarmā (*Padmapurāṇa and Kālidāsa*, Introduction) have said about the antiquity and greater value of the Bengali *Padmapurāṇa*. The omission of the Svargakhaṇḍa by the editors of the Ānandāśrama text of the *Padmapurāṇa* cannot condemn the recension represented by it. The antiquity of the additional materials in the Bengali text cannot be determined without their careful comparison with the common material. I suspect that this comparison will prove the lateness of those additional sections. The impression that I have formed about the *Padmapurāṇa* itself from such portions of the work as I had occasion to study is that it is a late and rather patched up work. The Bengali additions must be making matters worse still.

age of six. The sage then sends the mother and the child to Duṣyanta, so that the boy may be installed as heir-apparent. Śakuntalā introduces herself and her son and asks the King to consecrate his son as *Yururāja* according to his old promise. But the King feigns ignorance of all that affair and abuses her as an unchaste woman. Śakuntalā gives a spirited reply and tries again and again to remind him of his duty to his wife and particularly to the son. Duṣyanta obstinately sticks to his denial and Śakuntalā has no choice but to turn back. Just then a voice from the gods intervenes and tells Duṣyanta and the entire assembly that Śakuntalā is his lawfully married wife and the son his legitimate issue. Duṣyanta, who all the while remembered his doings in the forest, now gives up the feint, accepts mother and child and tries to appease the former. Here the story ends.

In the opinion of Professor Winternitz the story is "unattractive and has no artistic basis." He complains that "we are scarcely told why Śakuntalā is at first not recognised by the King, and the account given of her final recognition is very insipid." Still our great dramatist could hew out of this rough material a lovely work of art. I may, therefore, add that Winternitz has not been quite fair to the merits of the Mahābhārata story. In spite of the long harangues of Śakuntalā on wives and sons, the story is not lacking in vigour characteristic of the heroic age. As regards Duṣyanta's refusal to accept Śakuntalā as his wife and Bharata as his son, he had good reasons for it. In the heat of passion he might have agreed to accept the issue of the connexion as the *Yururāja*, "without proper consideration" (*avicārayan*,¹³ I. 67. 18 *b*—Bombay ed. I. 73. 18 *b*), but it was very difficult to fulfil that promise. Though kingship was hereditary there was in ancient times always some amount of popular will involved in a king's choice of his successor. The King might have plighted his word to Śakuntalā but it would be difficult to make the people accept her son whom they saw for the first time only now as their future king. Hence the feint of the King. It is only when the *dieu ex machina* in the form of the voice from heaven intervenes that the tangle is resolved. It should be noted that that voice laid particular emphasis on Duṣyanta's duty to

¹³ *Avicārayan* may also be translated as "without hesitation" but the rendering given above seems more suitable; cf. I. 69.40 and 41 (I. 74.122—123).

his son. The whole trouble was about the acceptance of the son. When the gods have intervened in the matter, Duṣyanta has no longer any apprehensions about disapproval of his subjects.¹⁴ He draws the attention of his priest and the ministers to the divine voice and openly accepts his wife and son and is greeted by the people (I. 69. 35-38—Bombay ed. I. 74. 116—120). To Śakuntalā he explains that his feint was for her own vindication: as the marriage took place in secret people would not believe in it and accept Bharata as the rightful successor of the King (verses 40-41—Bombay ed. 122-123). That means that the King sought to provoke Śakuntalā to invoke divine testimony (*divya*). The testimony did appear and gave her the vindication wanted.

The Mahābhārata story, as it is, is not so absurd as Winternitz supposed. But it could not suffice for Kālidāsa's dramatical needs. A *nāṭaka* must have sufficient length. Lack of incidents could not be made up there by interminable speeches. There must be a lot of real action. Then, according to the rules of the Sanskrit drama, which must contain an element of tragedy in spite of a happy ending, there must be a sufficiently marked set-back in the action (*vimarśa*) after the climax (*garbha*) had been attained. The interval between Duṣyanta's first repudiation of Śakuntalā and her acceptance must therefore be sufficiently long to give a scope for accomplishing the catharsis of pity (or fear) which is essential in a tragedy.¹⁵ Though the Mahābhārata story was not itself insipid it was ill suited to dramatic representation without considerable modifications.

Then, whatever may be the justification of Duṣyanta's lying statements in his own estimation, a later age could not take his conduct as moral. A king of a noble family, whose son, Bharata, was to give his name to the family and to the entire country, could not be represented as telling so many lies though he was all the time conscious that what he was saying was false and what Śakuntalā was saying was absolutely correct. Further, the passion that Duṣyanta feels for Śakuntalā in the *Mahābhārata* is merely animal lust which must have immediate

¹⁴ Compare the device of a drama within a drama with actually the participating goddesses as actresses used by Bhavabhūti in the Seventh Act of the *Uttararāmacarita* used for a similar end.

¹⁵ Aristotle, *Poetics* (§ 6), translated by I. Bywater, Oxford 1920, p. 35.

satisfaction and which knows no responsibility. Duṣyanta promises to make the issue of the marriage his future heir and also says that he will immediately send men to take away Śakuntalā to his place but makes no effort to keep his word. This is highly reprehensible. A king should set a very high standard of moral behaviour, for what the great do the world follows.¹⁶ We, therefore, find Kālidāsa making a studied effort to paint a king as of ideal conduct in his last two compositions, the *Raghuramāṣa* and the *Abhijñānaśakuntala*.¹⁷ His moral tone is unmistakable in these two works, though he has made no parade of it and has kept it under proper artistic control. Literature (*kāvya*), says Mammaṭa, gives admonition in the way of a loving wife (*kāryam kāntāsammitatayopadeśayuje*). Hence Kālidāsa must paint a moving picture, in which the chief figure is free from all moral imperfections. Duṣyanta has, therefore, to be painted as a wise and noble monarch (*dhīrodātta nāyaka*), incapable of consciously breaking his plighted word or speaking an untruth. But the facts were there that Duṣyanta did not himself send men to fetch Śakuntalā and when she came herself he first denied his marriage with her. These must be explained in a manner which would save Duṣyanta from the reproach of falsehood. For this the curse of the irascible sage Durvāsa came in handy. It was under the influence of an external impressed force, viz., the curse, that Duṣyanta temporarily lost all memory of his marriage with Śakuntalā and not only did not send for her and denied the fact of the marriage when she tried to remind him of it, but also told her many hard words which could have never escaped his lips if he had remembered the past. It was only when the memento (the signet ring of the King) was recovered that his memory came back to him. The returned memory led to prolonged agony and we have the interest of the story maintained fully through the long *vimarśa sandhi*. Kālidāsa thus obtained sufficient additional material for dramatizing the story.

This curse of Durvāsa is the most important change introduced by Kālidāsa. Many of the other changes are interwoven round this one and we get a consistent picture throughout. The incident of the

¹⁶ *Bhagavad-Gītā* III. 21.

¹⁷ This is (according to my theory) because Kālidāsa had seen through Gardabhila what harm-
kingly misconduct could bring into the whole state.

curse itself is introduced with very great skill. There are several other independent changes which bring in improvements on the story from the artistic point of view.

The first point to note in the drama is that Duṣyanta receives a blessing from some hermits that he will have a glorious issue who will become a great emperor. This is when the King refrains, at the request of those hermits, from shooting down a deer he has been pursuing for a long time. This blessing is the starting-point of the action (*bīja*). The hermits then invite the King to enter the hermitage of Kaṇva though the sage is away and accept the rites of hospitality from his daughter Śakuntalā. Duṣyanta is thus not an uninvited guest as in the *Mahābhārata* when he enters the hermitage of Kaṇva nor is his meeting with Śakuntalā accidental. Duṣyanta's stay near the hermitage is prolonged not on his own business but because the hermits want him to guard their sacrifice from the onslaughts of demons.

In the *Mahābhārata* Kaṇva is out for a little while and the King takes immediate advantage of the loneliness of the lovely girl chance had thrown in his way. In Kālidāsa's drama, the sage is gone on a mission that is to keep him away for a length of time. Śakuntalā is also not alone but is constantly attended by two loving friends with the old lady Gautamī as an occasional addition. Consequently we have a natural course of love and everything proceeds in a decorous manner and we have none of the unseemly haste we find in the *Mahābhārata*. Duṣyanta's love for Śakuntalā is not a one-sided affair in the drama but is fully reciprocated by his beloved. Then the passion is not a sudden gush but grows step by step. A poet may have asked, whoever loves that loves not at first sight? But even love at first sight is hardly a sudden sentiment of lightning speed. It may be a quick affair but is still a psychological process with stages in it and is brought on by a variety of circumstances which may elude the notice of the hasty observer but are there in all cases of real love. These circumstances are fully given in Act I of the *Abhiññānaśakuntala*, beginning with the blessing of the hermits and the throbbing of the right arm of Duṣyanta when entering the hermitage, and the course of love is psychologically correct. I regret that I cannot here enter into an analysis of the love of Duṣyanta and Śakuntalā, because that is a topic by itself and cannot come

under the title of the present paper. We need not also tarry over the artifices Kālidāsa has used for showing or furthering the flow of love. But we must note that the love is genuine on both the sides and has nothing carnal or commercial about it. We have, therefore, no stipulation that the issue of the marriage is to be chosen as the King's successor.

The loves of the two young persons succeed and they are joined in holy wedlock which is not actually represented on the stage. The King is, however, forced to return to his city as the sacrifice of the sages is finished. In the *Mahābhārata* the King promises to Śakuntalā when leaving her that he will shortly send a proper retinue to take her to Hastināpura. This is rather difficult to understand as he has his army and other followers with him in the forest at that very time. He may have thought that he should not take away Śakuntalā in the absence of Kaṇva but should send men to fetch her after the sage returned, heard of the marriage and approved of it or got reconciled to it. But his failure to send for her even in nine years¹⁸ makes us suspect that he meant nothing of the sort but simply wanted to get away scot-free before the sage could return. In Kālidāsa's story there is no such deliberate break of promise. The King has to go away because he has no other business in the forest, but he cannot take away his queen just now for he has no retinue with him at this moment, suited to the new status of Śakuntalā. He sent away all his followers along with the Vidūṣaka on the day following his first meeting with Śakuntalā. His mother had wanted him in the city but he could not go as the hermits had asked him to stay in the forest to guard their sacrifice. So he had to send the Vidūṣaka as his substitute¹⁹ and he sent his entire retinue with him that no disturbance might be caused to the hermitage. So there are none to accompany the new queen in her first state entry into Hastināpura. Hence Duṣyanta promises to his young wife when taking leave of her that his men will come and take her away before she

18 The *Mahābhārata* says that Bharata was in the womb for full three years. He was in the forest for six years after being born, before he was taken to Hastināpura. Hence nine years had elapsed since Duṣyanta had come to the forest.

19 This sending away of the Vidūṣaka is very important for the development of the plot. If the Vidūṣaka had known everything about Duṣyanta's marriage with Śakuntalā he would have referred to it again and again and not allowed Duṣyanta to forget Śakuntalā.

comes to the third syllable of his name in the signet ring he has just given to her, of which she is to count one syllable each day. Kālī-dāsa's Duṣyanta means every word of what he says. But fate wills otherwise. On the very next day comes the angry sage Durvāsas who receives no rites of hospitality at the hands of the absent-minded Śakuntalā and curses that she will be forgotten by the very person lost in whose thoughts she has failed in her duty to the guest. Even this curse does not reach her ears. But her friends have heard it and one of them succeeds in inducing the sage to decree that the king will remember her when he sees some memento.

We may well imagine that when the King returned to his capital after a long time he was immediately faced with a large mass of work which had accumulated in his absence. He could not think of anything else for some days. By the time all this work is finished, the curse has produced its effect. Hence Duṣyanta fails to send for Śakuntalā within three days. Days pass away after days and the hopes of the languishing wife are daily frustrated. She cannot go herself to meet her lord unbidden. Kaṇva now returns and the first thing he does is to send Śakuntalā to Hastināpura in the company of Gautamī and two of his disciples. The Fourth Act gives a very touching description of the leave-taking. This Act is popularly believed to be the best in the drama but from a dramatical point of view the Fifth Act is immensely superior. Whatever that may be, the Fourth Act is an excellent foil to the great tension of feeling that confronts us in Act V.

When the Fifth Act begins we find the King seated with his confident and listening to some note of music coming from his harem.²⁰ The King understands that Hamsapadikā, seemingly a friend of the Chief Queen Vasumatī or a lady in waiting on her, is singing and the song refers to his inconstancy. He realises that the reproach is addressed on behalf of Vasumatī whom he has ceased to visit.²¹ Duṣyanta sends

²⁰ This is so in the Devanāgarī and the South Indian recensions of the drama. The Bengali text which is followed by the Kashmiri recension begins with the advent of the Kañcukin. The Devanāgarī text is immensely superior here (as in most other matters) from the dramatical point of view. I feel that the preference I showed to the Bengali recension on this point in the *Calcutta Review*, Third Series, Vol. VI. p. 424, is not justified.

²¹ There is a good deal of confusion in the different texts about the names here. To my mind the best readings give the name of the singer as *Hamsapadikā* and that of the person on whose behalf she admonishes the king as *Vasumatī*.

the Vidūṣaka to Hamsapadikā to compliment her on her clever reproof. The King is however steeped in a reverie : he feels that he has forgotten or lost something he cannot recollect what and he supposes that the reminiscence that is dimly roused in his mind by the song is that of some love in a previous birth. This shows that though under the influence of Durvāsas' curse thoughts of Śakuntalā have been brushed away from his conscious mind they are still well entrenched in the "unconscious" level and the reference to his forgetfulness in Hamsapadikā's song brings it to an upper level and thoroughly upsets his equilibrium. *He has not therefore wholly forgotten Śakuntalā.* There is another important point to note. We can safely infer from Hamsapadikā's complaint that the King has ceased to visit his old love Vasumatī. Why is it so? Certainly because Śakuntalā has entered into the picture and a man who has lost his heart to a Śakuntalā can no longer cherish the thoughts of a Vasumatī. So he has kept away from her, very likely from the very day that he came back. Consequently whatever change Durvāsas' curse may have produced on the surface of his mind, he has gone to no other wife and is still true to Śakuntalā. Duṣyanta promised to Anasūyā that though he has many wives, henceforth Śakuntalā alone would reign supreme in his heart. This she did in spite of the curse. Hence the neglect of Vasumatī and her reproach to the King through Hamsapadikā. The opening scene of the Fifth Act thus fully vindicates the honour of Duṣyanta.²²

The advent of Śakuntalā and her party is announced. The scene of her repudiation by the King and her repeated efforts to vindicate herself is a wonderful creation and is wholly original. Śakuntalā is much gentler here than in the *Mahābhārata* and the King is more dignified. In spite of the hard words he says under the spell of the curse his unassailable virtue cannot but make us admire him. Śakuntalā fails to bring recollection to the King and goes away in the company of the King's priest with a heavy heart which was almost ready to burst. The ring that she failed to show the King because she had unwillingly let it fall in the river on her way to the city is recovered and the whole

²² The scene serves other purposes too. It is an excellent connecting link between Acts IV and V. It prepares us for the forgetfulness that the king is to display when Śakuntalā appears on the scene later on in Act V. It also gives the king an opportunity to send away the Vidūṣaka whose presence at the time Śakuntalā was to come there would have frustrated her repudiation.

past comes back to the King. So Śakuntalā was right and he was wrong! Great is his sorrow now and the Sixth Act makes us share his grief. The only relieving feature here is that an emissary from Menakā, the mother of Śakuntalā, who carried her up to a heavenly region after she left the royal palace, comes and secretly sees his misery and can report to Śakuntalā the great repentance that has come over the King at the return of his memory. The end of the Sixth Act takes us on to the Seventh Act in which Duṣyanta and Śakuntalā are to be re-united.

That Duṣyanta and Śakuntalā should marry by mutual consent alone was in itself not wrong. Marriage in *gāndharva* form was a well recognised institution among Kṣatriyas. But by marrying in this form, Śakuntalā was guilty of dereliction of duty. Her condition was different from that of other Kṣatriya girls. She had been abandoned by both her parents at her very birth and if Kaṇva had not tended her she would have been devoured by wild beasts. She could not *morally* take the same liberty with her foster-father as an ordinary Kṣatriya girl could take with her own father. She ought to have waited for the consent of Kaṇva before giving herself away in marriage. She was strange to the ways of love and when these new sentiments took possession of her mind she failed to realise her duty to her foster-father. Śakuntalā was thus guilty of a transgression and she must therefore atone for it. Poetic justice brings in the curse of Durvāsas and she has to suffer terribly. We should note that the circumstance which was the immediate cause of the curse was also a case of allowing of feelings to come in the way of duty. Śakuntalā suffers and Duṣyanta must suffer too. There was nothing wrong for him to propose marriage with Śakuntalā or to marry her in the absence of Kaṇva. But when the person with whom Hymen had joined him was to suffer how could he escape suffering? There was another and a very deep reason for Duṣyanta's torture. He was himself not to blame for his repudiation of Śakuntalā, because it was due to an adventitious circumstance, the curse of Durvāsas, over which he had no control. But the fact remained that it was *he* who repudiated her when actually she was his married wife. A child may not know that if it puts its hand into the fire it will burn, but when the child puts it there the fire does not turn cool. A man newly come to this province may not know that he may

get a bad sun-stroke if he ventures out of doors without taking certain precautions on a day of May when the west wind is blowing furiously. But nature will do its work and he will get the sun-stroke. As the laws of nature never relax their rigour, so are the laws of moral retribution unsparing in their operation. Our suffering for an unconscious sin may be less than that for a deliberate one but suffer we must. So Duṣyanta had to suffer. The sufferings of these two individuals purged them of their sins and an invitation came from Indra to Duṣyanta, which was to help join again these two loving souls pining for each other. Then comes the re-union.

Kālidāsa is wholly original in his idea about a fit place for their re-union. Göthe wrote to a friend that if he wanted to combine heaven and earth in one name the poet would name for him²³ the *Śakuntalā*. The *Śakuntalā* is a wonderful union of heaven and earth. In the *Mālarikāgnimitra*, Kālidāsa's first drama, both the hero and the heroine belong to this earth, but in his other dramas he has brought about a union of heaven and earth. In the *Vikramorvaśya* the heroine is a heavenly nymph who comes down to earth to dwell with her human lover. We have a much better joining of heaven and earth in the *Abhijñānaśakuntala*. The heroine here was born on earth though she was of partly divine origin. She is herself thus a combination of heaven and earth so far as her physical frame is concerned. But in spirit she belongs more to the other world. Her ignorance of the ways of this world has brought her great sorrow and her divine mother carries her up to a higher region where peace reigns supreme. Duṣyanta has meted out to her a treatment which can be understood only in this world. If he has to make amends he must needs go to a higher plane where he can meet her and falling at her feet ask for her forgiveness.

In the *Mahābhārata* Śakuntalā came to the King with her child grown big but in the drama of Kālidāsa the child was not yet born.

²³ It is a great pity that the dative *dir* ('for thee') in the last line was later changed into the accusative *dich* ('thee'), giving a very wrong close to the verse. It was certainly not *Śakuntalā* but the *reader* who wanted the young year's blossom and the other things named in the verse. We should, therefore, render the last line in English as

I name thee Śakuntalā and all at once is said
and not as

I name thee, O Śakuntalā, and all at once is said.

In the Epic Śakuntalā again and again tried to make an appeal to the King's filial sentiments and all that was unavailing. But in the drama the child makes the King melt in affection immediately he sees it and it becomes the cause of his re-union with his beloved Śakuntalā, for is not the child the connecting link between the man and the wife?²⁴ As the first course of the love of Duṣyanta and Śakuntalā had proceeded step by step in the First Act, so did Duṣyanta's recognition of his son and knowledge of his wife in the Seventh Act. It is only a master artist who could show such consummate skill.

One point in this connexion specially reveals Kālidāsa's great knowledge of human psychology. Duṣyanta has understood bit by bit that the child playing with the cub of a lioness is his own son and its mother is his beloved Śakuntalā. So when Śakuntalā appears on the scene he has no difficulty in recognising her even in her present wholly altered state. But it is not so with Śakuntalā. She has not been definitely told who the person is who is embracing her son and has taken up from the ground unharmed the talisman that fell from the child's arm, but she must have inferred that the person is Duṣyanta. Still the information that is brought to her is so unexpected and sudden that it gives her a great shock which confuses her mind. When she actually sees the King she cannot, therefore, recognise him for some moments. We may look upon the case as one of what psychologists call "shock amnesia."²⁵ There is perhaps another reason for the King's immediate recognition and the delay on Śakuntalā's part, which was connected with the Indian conception of the relation between the two sexes. The woman was wholly dependent on the man. The King had turned away for no fault of hers a virtuous wife when she came to him and forced to live separated from her husband. Duṣyanta could well imagine, when his memory came back to him, the great change that would come over a virtuous wife under such circumstances.

²⁴ Cf. *Uttararāmacarita*, Act III,

प्रसवः खलु प्रकर्षपर्यन्तः स्नेहस्य परं चैतदन्योन्यसंश्लेषणं पित्रोः ।

अन्तःकरणतत्त्वस्य दम्पत्योः स्नेहसंभ्रयात् ।

आनन्दग्रन्थिरेकोऽयमपत्यमिति बध्यते ॥१८॥

Bhavabhūti has made explicit what is implicit in Kālidāsa.

²⁵ Mr. A. C. Mukerji of our Philosophy Department drew my attention to this explanation.

Her life had been thoroughly blighted! But we cannot expect that Śakuntalā would anticipate a similar change in him. He was a man, not dependent wholly on his mate. He had other wives too. Then, he was himself the sinner, while Śakuntalā had been sinned unto. That made a lot of difference. When Śakuntalā saw Duṣyanta last (in Act V) he was in no sorry mood and even the report of Sānumatī could not make her fully realise the change that had come over him in the meanwhile. The picture in her mind's eye was still that of the King she saw in her first youth and the man whom she now found embracing her son fell far behind it. Hence the difficulty of recognition. Lastly, here too we have a working of poetical justice. Duṣyanta had failed to recognise her in the past. She must on her turn fail to recognise him now even though for a few moments. Recognition, however, dawns on her soon. Duṣyanta makes adequate recompense to Śakuntalā and they are quits now.

So is the dramatist too. He has given adequate expression to all the sentiments of the human heart from the lowest to the highest and seems to have lived a life rich in varied experiences and he has no unsatisfied desires to pursue. He, therefore, concludes with a prayer that Śiva may give him respite from the ever-recurring cycle of existences.

मित्रस्यामरनाथस्य प्रार्थनालिखितो ह्ययम् ।
 निबन्धः कालिदासस्य भक्तानां भवतान्मुदे ॥
 विद्याया आलयश्चायं प्रयागे विश्वविश्रुतः ।
 उत्सवं लभतां सम्यग् विद्वज्जनसमावृतः ॥
 क्षेत्रेशश्चट्टवंशीयो लेखस्यास्य निबन्धकः ।
 भारतीसेवकश्चास्तां विदुषां चरणाश्रितः ॥

IBN KHALDUN ON TEACHERS AND STUDENTS

By MR. M. NAIMUR-REHMAN, M.A.

Abu Zayd Abdur-Rahman, surnamed Waliyyuddīn and commonly known as Ibn Khaldun, from his ancestor Khālīd (known as Khaldūn) who migrated from Yemen to Spain early in the ninth century A.D., was born in Tunis in May 1332, and died at Cairo in March 1406. Well learned in the sciences of grammar, language, law, tradition, poetry, logic, philosophy, dogmatic theology, and other branches of Arab learning, Ibn Khaldun filled various important offices of state with different princes in Tunis and elsewhere, and proved himself to be an able administrator. He played a great part in the politics of North Africa and Spain. He is known as the author of the huge history, extending over seven volumes and entitled as the *Kitāb-al-'Ibar*, an indispensable work for the history of his time, which he began to write in 1378. His *Muqaddima*, established his fame as the father of historical criticism. He asserts, and justly so, that he has discovered a new method of writing history. He stands far above his age and countrymen, and Professor Nicholson rightly counts Machiavelli, Vico and Gibbon among Ibn Khaldūn's "intellectual descendants." Though intended to be only an introduction (as the name itself suggests) to his great history, the *Muqaddima*—or the *Prolegomana*, as it is known to the Europeans—deals with all branches of Arab sciences and culture, and remains "as regards the depth of thought, clearness of exposition and correctness of judgment undoubtedly the most important work of the age." In this learned and wide dissertation of his, he devotes some space to education, the art of teaching, the aims of education, etc. During this talk he finds occasion to address the teachers and the students, and advises them to follow a regular course and method in imparting and receiving knowledge. Below is given a free rendering of what the great scholar and historian has to tell us.

TO TEACHERS

The imparting of education to students will be beneficial if it is done gradually, one thing after another, little by little. In the beginning only the basic principles of a particular science or art should be

placed before the student, and everything explained to him in brief. During this process full regard should be given to the strength of his intellect and his capacity to grasp what is presented to him. And so on, till he arrives at the highest point of the art, when he obtains a tact in that science, although it still may be partial and weak. The object in view is that it prepares him to understand the art and grasp its problems. Thereafter he turns to another art, which further lifts him up in understanding and grasp to a higher position, and he is able furthermore to express and explain it. Thus getting out of brevity, and realising its counter arguments and its form, he advances towards another art. In this way his tact gains excellence, and makes him strong and stalwart, so that he clears up all that is obscure or important, or connected with the subject in hand, and he opens up all the closed intricacies. So he successfully extricates himself from the art, having mastered its tactual grasp. This, then, is the beneficial way of educating. And this, as you have seen, is obtained in three revisions. Some students may acquire it in less time than that, according to the bends of their minds and the facilities they may find.

We have observed many teachers of our time who do not know the proper methods of educating and benefiting the students thereby. In the very commencement of his education they would present to the student knotty problems of science, and demand of him a readiness of intellect to solve them. They regard this method as a great exerciser of the mind, and therefore they inflict upon him a regard for it and an acquisition of it. Thus they manage to confuse the issues of the arts they offer to teach him, at the very outset and even before he acquires a capacity to understand them. For the acquisition of knowledge and the requisite capacity to grasp it, is born gradually only. In the beginning the learner falls short of understanding things fully. He gets it only partially, just by way of introduction, briefly, and by dint of perceptible examples only. Then his capacity develops slowly by a practice in jarring problems of the art, its repetition and transition from one subject to another, and a study of the higher problems. The tact and capacity develop to a high pitch, and the student gains mastery over the problems of the art. If, however, the ultimate grades of the art are presented to the learner in the very beginning, while he is yet unable to understand and grasp, and falls short of it in his

capacity, it altogether blunts his intellect. The student regards this as a hardship of knowledge itself, grows lazy, and avoids acquiring it and repels it. The truth is that all this results from the wrong method of education.

The teacher should by no means enforce upon the student the understanding of the book given to him for study, for he can do it only according to his prowess and in proportion to his capacity of grasp, immaterially whether the student is a beginner or a final one. The teacher, likewise, should not mix up the problems of one book with those of another, till the student has mastered the first one from the beginning to the end, has obtained the aim in view, and has acquired such a complete grasp over it as may help him in the study of other books. For the fact is that when a student gains tact in any one of the sciences he gets a capacity to understand the rest of it, thereby creating a pleasurable taste for learning more of it and rising to a level higher than that, till ultimately he can reach finality in knowledge. If, on the other hand, matters are presented to him in a confused manner, he is unable to understand it all, he feels tired of it, and his faculty of thinking is smothered. He despairs of acquiring any knowledge at all, and ultimately gives up learning and teaching.

Likewise it is imperative that you, O Teacher, should not prolong for the student the teaching of one single art by long intervals and breaks between meetings, as this leads to forgetting and an unhealthy break between the various problems, leading to a difficulty in the acquisition of tact. If, however, the first and the final stages of knowledge be all present in thought, the required tact is obtained more readily, is compacted more strongly, and affected more easily, for tact obtains by a continuance and repetition of action, and when the action is forgotten, the tact arising therefrom is forgotten as well.

One of the good modes and necessary ways of education is that two sciences be not presented to a student in a confused form at once; as in such circumstances he cannot be expected to succeed in acquiring any one of them, owing to the division caused in his attention and the detachment of his mind in studying one science apart from the other. Consequently both of them become closed up to him, and he is sorely disappointed. When, however, the mind is free to learn and grasp only one science or art to which all its attention is given, that becomes

the fittest form of education for a student. *And Allah alone can guide to the correct method!*

To Students

O students, here I present to you something that will benefit you in your education. If you accept it, hold fast to it; and you will win a great treasure and a precious store. I will lay it before you with an introduction that will help you in understanding it. And it is this :

Human thought is a special feature of nature, which God has created like other creatures of His. It is the feeling of a movement in the mind, lying in the middle recess of the brain. Sometimes it creates human actions in a regular system and order, and sometimes it produces knowledge which is of no avail without giving proper attention to the desired object. But when one considers both sides of a question and wishes to negate or affirm it, then the centre brightens it up for him and reconciles the two phases of the question in a time quicker than the twinkling of an eye, if it is only one question; or he will resort to the acquisition of the other one, if it is a multiple problem. Thus will one gain success with the object in his view. This is the feature of this faculty of thought, which distinguishes man from all the rest of the animals.

Then comes the art of logic, which is the action of this faculty of theoretical thought. It points out to him his accuracy as distinguished from his fault, for sometimes a mistake does occur in the slightest conception of the two phases of a question, owing to an obscurity of aspects, leading to a misarrangement of premises and thence coming to correct inferences. Logic thus helps to release one from the whirlpool of this kind of disparity of facts whenever it may appear. Therefore, Logic is an art contending with the Thinking Faculty of man and fully agreeing with the aspect of its work. And since it is an art, the thinker may oftentimes do without it. That is why you find that many thinkers obtain their desired ends without the aid of logic, especially if and when they are honest in their intuitions and seek the favour of God. They employ their thinking faculty in the right manner, and it leads them on naturally to the acquisition of an excellent knowledge or the desired, just as God has made it.

Now before the art of logic comes another introductory element of education, and that is the knowledge of words and their signification of meanings. This you will achieve by regular study of written books and by exercising the tongue to speak. Therefore, it is imperative that you should advance beyond all these hindrances towards the thought of your desired object. The first thing you should attend to is the guidance afforded by written words to the spoken words. Then is the guidance of the spoken words to the desired meanings, and then come the laws of the arrangement of meanings to argumentation as laid down by the art of logic. These meanings lie in an abstract form in Thought, and by dint of them the Thinking Faculty hunts out the desired object, depending all the while on the mercy of God and His gifts.

None can afford to cross through these stages of study in haste, nor can these curtains in education be raised up easily. For often does it happen that the intellect getting stuck up in these curtains of words in discussions, or stumbling upon a mixed sort of arguments in disputes, falls short of attaining the desired thing. Only a few intellects can extricate themselves from that maze. If you get involved in a state like this, or a confusion attacks your understanding, or you are faced with ramification of doubts occurring to your mind, then throw it up all, remove these curtains of words and those obstacles of doubt. Get out into the open expanse of your natural Thinking that is innate in you. Let your eyes roam freely in it. Pour your mind out into it, and dive in to obtain your wish from it. Thus can you make use of the intellect as the great thinkers have done before you. Then comes the time for you to attend to the moulds and forms of argument. Cast your thought in it, and do full justice to the law of the art. This done, you now clothe the thought in the garb of words and put it forth into the world of expression and conversation, and it will be quite solid and well-built!

THE ASPIRATIONS OF YOUNG JAPAN

By PROF. E. E. SPEIGHT, M.A.

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To do justice to a cosmos of such variety, vitality and suggestion of latent power as the Japanese student-world is a matter I have long dreamt of, often essayed, but never cleared of the labyrinth of detail.

In the outer world the Japanese are a silent race. We are all waiting for Japanese poets and playwrights and story writers, for illuminating interpretation of Japanese life by the Japanese themselves. I myself should feel this the more intensely were I not able to show that it is rather want of opportunity and encouragement than of ability which lies behind this state of things. Moreover, the background of Japanese student life, in one way rigid in its simplicity, in another almost cinematographic in its fluidity, largely explains this shyness in self-expression. The very language by the wholesale adoption of Chinese vocables, has changed in the last generation as no language in the history of civilization. Through the medium of this new speech, that is, mainly verbally, the interminable facts of the outer world are rushing into the consciousness of young Japan—for the greater part without accompanying experience necessary to actual realization. And this at a time when the greatest thinkers and savants of Europe are deploring the inadequacy of our present terminology to suit the changed conditions and implications. Let me quote the words of a student who feels himself a victim of this external pressure.

“ I suspect the thoughts of our country have fallen into chaotic confusion, which has given rise to these little, piteous imps of doubt, nihilism, destruction, vain resistance and so on. I, as well as all other young Japanese, live in this environment. Unhappy we are: what would I not have given if I had been born in the era of Edo when all people were peacefully enjoying themselves, and no wild intruders, such as capitalism and journalism, were yet known, and I could believe in Heaven, so that I cheerfully could have read the classic literature and written curious mystical novels that would have

excelled those of Saikaku or of Ueda Akinari, with whom I would have been friends. ”

In the schools the contortion resulting from imperfect assimilation would be more painful were it not for the fact that many of the sturdier types of young Japanese have a native wisdom and commonsense which atones for want of accuracy in detail and perspective. But there is a terrible danger ahead in the thousands of crude, undisciplined and misguided minds graduating from the higher institutions. The government is aware of this to a certain extent, but Japan's geographical and cultural isolation is a matter any government will find it more than difficult to remedy.

The world of the students is a reflection of the vastly interesting transition now in progress in Japan. One of the best of my students in the Imperial University could write as follows on widely different subjects, exhibiting one phase of the spiritual synthesis of East and West which is to play such a great part in history.

1. I do not know exactly why trees are so suitable for our spiritual society. With them, we can be on the most easy, equal and plain terms; they will never be offended, whatever dreams and whatever symbols we may confer upon them—so long as they are of the soul. Sometimes they bend over us like a mild sage, and at other times they stand behind us as faithfully as an old servant. I will not laugh at the pusillanimity of a legendary samurai who fainted at a gourd tree in the dusk, while I will most sincerely sympathise with the grim vision of Mr. Hardy's *Yew Tree*.
2. The sense of form is very strong in China : it can say very much about things Chinese. You very well know how nicely and orderly arranged are China's functional rites, her political system, her philosophy, and even her grammatical syntax. That much praised pictorial script of hers is not very unlike Greek letters in giving me some aesthetic suggestions at first sight. And all these features of hers are sure to have evolved from the ground idea of form. But her common sense gives way to the

final question : " Why is the idea of form necessary then ? " Like France in the 18th century, she seems to think of form before the thought it must contain. Here lies the very weak point of her decline.

3. In this similar delight in the evening there lies one strong resemblance between the Celtic writers and Japanese, with all the divergences in the rest of their qualities. This is why we cannot free ourselves from the charm of such Celtic writers as Yeats, Maeterlinck, and Barrie, even though we may discard that brilliant word painting of Gautier and the chromatic paraphernalia of the impressionists. Even to us there were days when we piqued ourselves upon false admittance of Realism, but now we know that attitude is not akin to our nature, and we would rather confess openly our supreme pleasure in reading Yeats' *Wind Among the Reeds* and Saigyô's *Sankushu*.

It seems to me that these young men are extraordinarily ready in their reaction to what is good or momentous in any part of the world. They are now conscious of the deficiencies which narrow and faulty methods of education have brought about. They are first and foremost Japanese of course, and that means that they most jealously guard their own individuality and nationality against the predatory intrusion from which most of Asia has suffered so long. This means also that they are eager to welcome anything which will build up and fortify their humanity. If war is called for they are ready in spirit; but if the war-spirit stands in their way, it must go.

Moreover, as time goes on the higher truths of science are becoming realized,—I mean such vital truths as the one thus expressed by Edward Caird: " The inner life of the individual is deep and full just in proportion to the width of his relation to other men and things," or as Henry Drummond memorably states: " Evolution is not to unfold from within, but to infold from without."

The realization of all such incalculably expansive truths as this is rapidly convincing whole sections of the younger generation of the

vital danger of all policies of exclusion and aloofness, those fatal legacies of the Tokugawa period of arrest.

This brings me to another matter. I opened my paper one morning and read a report that the Japanese police had unearthed a plot, in which even University professors were engaged, to establish a branch of the Third International in Japan. Be that as it may the sympathy of the Japanese reading public for Russian humanity is a very real thing, and a very important factor in the present state of world affairs, and is likely to be more so.

The words of Kirillovitch in the *Brothers Karamazov*, a book which may be said to have stirred Japan more than any literature of the English speaking world, are of special interest here. He speaks of the degeneration of youthful idealism into gloomy mysticism or blind Chauvinism,—“two elements which are even a greater menace to Russia than the premature decay, due to misunderstanding and gratuitous adoption of European ideas.”

I have spoken of the ceaseless flood of new facts and ideas invading the Japanese consciousness from the West, and of the dangers of imperfect assimilation. But the reaction of young Japan to all this is quite different from that we have seen reflected in Russian fiction from Pushkin to Sologub. Instead of gloomy mysticism we have, it is true, a peculiar form of melancholy, the sense of *mono no aware*, the sadness of all things, which is one of the most beautiful and most baffling traits of Japanese life, as beautiful as moss-grown ruins, or as the slow dying of dear memories, as baffling as genius itself. Let a student express it as it crystallizes into poetry.

I came to a temple in the mountains

One late spring evening,

Where my ancestors are sleeping their endless sleep,

And found the cherry blossoms scattering

At the sound of the bell,

Even in the windless quiet spring evening.

Incidentally, I may remark that the best library of books of mysticism, chiefly in English and German, which I have seen anywhere, is in the possession of a Japanese friend who has lectured on

the subject simultaneously in both Christian and Buddhist Universities in Kyoto.

Blind Chauvinism we have had enough of in Japan, and it is still prevalent, fostered by blunt and atrophied would be patriots; but the consciousness of dependence on environment for real growth, or in other words, of the uplift and salvation of mankind through friendly cooperation regardless of race or colour or cruel, is shattering the old barriers.

I have been strongly impressed on a thousand occasions that the Japanese are a people who incline to brotherhood. Any movement for the more hearty communion of races will have their support. Here is a modern writer's rendering poetical statement of this conviction.

“ We are all brothers on Mother Earth, for when we plough the field with one mind, even mountains that we may see under the blue sky will move out of their prase for our fraternity.”

And this is combined with a recognition of the urgent need for preserving whatever is good in the old and characteristic civilization of Japan.

“ There has been no such age as now, when all the good artists, musicians and authors of the western world are being introduced to our country. We have learnt much of them in every branch of culture that civilization can boast of. We have known many fresh sources of pleasure and the enjoyment of life. We have acquired knowledge of the manners and habits of western life through descriptions, pictures, and especially through the cinemas. This knowledge has worked upon our own life and changed our manner of living in every part. Most of us earnestly wish to approach the western life.

But will it bring any good result to the world that Japan becomes utterly like the European countries, giving up all the original things she possesses ? I cannot at all think so. The world can no more be expanded in space, but it can be surely be done so in its spiritual quantity. Enrichment of life is the aim of every one of us, and it is

attained by thoroughly exercising the individuality, the special talent a man has. Every nation must do its best in bringing out and refining its characteristics. We have spent too much effort in pursuing western civilization alone, and now we come to the time to look back to our own culture. Are there not many things of Japan which even foreigners regret have been neglected for a long time ? We must go on search for the precious treasures of culture that old Japan brought forth in the past, and we must contribute them to the great treasury of the world. ”

The third menace Kirillovitch spoke of, “ premature decay, due to misunderstanding and gratuitous adoption of European ideas, ” is counteracted by several elements in Japanese character, eminently the sobriety, practical nature, and low saturation point of most people. Moreover, if they do allow many things to run off their backs which would throw a Russian into a fever, they have a genius for seizing from the welter of new ideas such as are of constructive value. When I read Russian novels (as when I read Shakespeare) I am often struck by actions, attitudes and expressions more familiar in modern Japanese life than in English. But how much more there is in Dostoiefsky, in Chekhov, in Artzibashev, which is the very opposite of the good things Japan stands for ! And while Japan has given harbourage to many Russian refugees, she has had salutary experience of the nonchalance and socially fatal extravagance of richer Russians. But let me quote from recent essays given me by Japanese students :

“ The Russian situation in the world is very regrettable, and the internal condition of the country is very miserable, so that it is our responsibility to help Russia to emerge out of this present miserable condition. As we aspire to the world’s peace, so we hope for a harmonious solution of the Russian problem. ”

“ The Russian empire has been destroyed from her root, and the powers are gazing very cautiously at the Soviet government. The authorities consider their red propaganda very dreadful and poisonous. But our young people do not wish for such a system as in Russia, and do not fear its coming

to Japan. We are ready to take up the question of the Russian revolution and the propaganda of the Soviet Government, and to study exactly their processes and then discern the good and wrong thoughts and means."

"I cannot understand the growing tendency among Japanese youth of pretending to rival Russian grim profundity and pleasing themselves in the disguise of prison-like desolateness. If they are being intoxicated with the suggestions that Russia is grappling with the Supreme Truth which is beyond our apprehension, I must tell them that is not only Russia which represents this agony, and at last warn them that hundreds of suggestions will come to nothing unless the story actually solves the problem in some way or other."

So far I have illustrated the subject of this paper indirectly. I will now quote from various essays which have been written for me in class under this very title :

"To be born on this earth is itself an accident. To be born in Japan is an accident of accidents . . . There are many who regard foreigners as enemies and do not like to have intercourse with them . . . But a young man of this country must be a citizen of the world. 'A thousand miles is nearer than a neighbour.' It is our duty to strive for all our brethren. There should be no war, no poverty, no misery, no oppression."

"The awakening as men is one of the vivid tendencies in all young Japanese. In consequence of this self-awakening and the emancipation of our minds we can break the present irrational society full of awkward strife and establish a rational society full of sympathy. We want to embrace all others and all nations, all races and all creatures. This aspiration, I believe, shows the tendencies of modern young Japan."

"The term *Young Japan* implies a spiritual movement of the rising generations of Japan, whose chief intention is to release them from the bondage of unprofitable conventions

and meaningless traditions, and to proceed to the condition of culture and peace in a rather cosmopolitan way.

One who proceeds always finds obstacles in his way. But young Japan has its arteries throbbing. Hardships and fights mean nothing but stimulus.

Young Japan knows that every one should be a human being before he is a national. Young Japan knows that everybody should love peace, that everybody should make love and freedom the foundation of life. And Young Japan has made, is making, and will make, every effort to approximate to these ideals."

"Why are we so unhappy? We Japanese do not know the diffusive nature of society. One rank or profession confines itself in a strong fort and never communicates with the others. We are utterly and absolutely exclusive. It is not right. Society is no such thing. Politicians must be in touch with business men. Business men must be friends with poets. Poets must visit religionists. Religionists must exchange opinions with politicians. Then we shall realize the great social orchestra of liberty and equality."

"Most Japanese think that Japan is a first class nation in the world. Japan cannot be regarded as a fourth or fifth class nation. Since the beginning of the century the thought of democracy and liberty has been propagated more widely than ever. But do you not see the present condition of Russia, and what are the government and statesmen of Japan doing? It seems that they are not aware of that thought. They are mistaken, and they think that the thought of democracy and liberty is dangerous to Japan. It may be dangerous to the capitalists and peers, but for Japan herself it is the only one which will lead her to the means of making another reformation."

"One of the chief aspirations of Young Japan is democracy in education. There are, it is true, many schools, both public and private. In Tokyo alone there are more than ten

universities and colleges. Every year there come tens of thousands of young men to the metropolis to be educated. It appears at the first glance that education in Japan is very flourishing, but it is not true. Education needs very much money, and those who receive higher education are the sons and daughters of rich people. If Darwin's theory of the survival of the fittest be the right way of evolution of a human being, the fittest must all be present in that struggle. Now in Japan there are many of the fittest men who do not receive higher education. We must establish schools of new kinds throughout the Empire. 'Education first' must be the motto of Young Japan. When this educational revolution is completed, Japan will be among the powers of the world in the true sense of the world."

' Japan now stands on a volcano. It seems that these years Japan has been on her way to degradation and now is far from the doctrines of the foundation of our country. Especially the spirit of most young people cannot be compared with that of half a century ago. Though I do not admire all the spirit of the days of the feudal system, some of it is essentially necessary now, and the rest should be made up for with western thoughts. Many young people are seeking only after curiosity, and are paying no effort to grasp the essence of the new, satisfied with superficiality. They have no aspiration, but fantasy or vision. No one can expect from them the sound development of our country. Far from it, she may not march with the world. "

I was interested in your lecture on Prof. Raleigh and in that on Hakluyt. The whole theme is interesting, and moreover there is a particular point that fascinates me. For, as you know, I am strangely attracted by men who live among lower races or a people little known to the world. Today I was especially delighted, because there were five such people mentioned. (Sir Richard Burton, George Borrow, C. H. Doughty, Mary Kingsley and Colonel Lawrence.)

Will you laugh if you know that I thought once earnestly whether it was practicable or not to get an egg of a huge eagle and hatch it, feed and tame the bird to maturity, and fly riding over the mountains of Tibet or the plains of Siberia to some European village ?

I long for a strange place where I may live, quite satisfied, hidden from my native country. My longed-for Japan must be an actual land somewhere on earth, and may I soon be there! "

" What the Japanese must do is to learn to be humble, to stop priding themselves upon what they fancy peculiar Japanese superiority inherited from their ancestors. And then they will be able to recognise real beauty and real superiority in other nations. Then is the time of salvation for Japan. "

" I am a son of a very wealthy industrial man. It was my grand-father who got the wealth. He was a warrior before the Revolution, not of low extraction, but not at all well off. He lost his income at the abolition of the feudal system, and entered the mining business, in which he was one of the most successful in that period.

I have too strong a conscience to merge myself in the industrial system of the present society, overlooking the terrible social evils caused by Capitalism. I have too great a longing for the natural life of mankind, to have myself drowned in the artificial modernism also based on Capitalism. I have no belief in capitalism, and have no trust in the present political system, although I have no intention either of joining or of instigating any of the destructive movements, because I have no trust in them either. I like to sit quiet, as distant from the present society as possible, and from its modernism, searching for the great truth which will lead us to a better social life, from the history of mankind; for what has been done is not to be ignored in finding out what we ought to do or to have in future. "

What I have said personally of the Japanese student many will regard as an idealization. But there is all the difference in the world

between idealizing and seeing through character to the abiding human interest and worth. My experience had been an unbroken one of exactly the same number of years as Lafcadio Hearn's; it has brought me friends in all walks of Japanese life, from the sons of charcoal burners to members of the Imperial family itself, and to the compensations for the many discomforts and sadnesses in that life I am fully justified in bearing witness.

The Japanese student as I have found him is a revelation, a new power in the world, making for steadiness and simplicity and loving kindness. He must be counted on in all estimates of the future, but he has his battles to fight and he deserves the noblest allies. In all the confusion which Japan's rapid approach to close acquaintance with Western life is causing, all the social and economic changes involved, all the inflation and decadence and catastrophe brought about by the War, it is well to feel assured of this growing force that is making for rectification and construction and sounder processes and institutions.

It is more and more my conviction that the wisest and kindest attitude of the outside world is not one of destructive criticism but of sympathetic appreciation of Japan's difficulties and sacrifices, and that means a greater readiness to draw closer and take the trouble to discover the true reason of things we cannot understand.

And we must give a great nation, as well as a great man, leave to take its time.

It has been said that Japan is great in small things and small in great things, and never was a more unjust antithesis. The great things of Japan's achieving are beyond the vision of such shallow self-complacence. The small things of Japan have a molecular power of concourse; their very simplicity enables them to undergo fusion into a portentous whole.

The great things of which we are proud, the richness and variety of our life, our vast schemes and colossal achievements, are they not also terribly cumbersome? Can we escape from them? Is not the adherence to simplicity and small ways, in spite of the allurements of modern life, a great buttress of character indeed?

The problem of the world is the simplification of life. Joyous life, like art, demands constant rejection of the superfluous, and in

this direction Japan can come to the aid of the world, materially and spiritually.

On the other hand it is as clear as noontide that these sons of Japan deserve far more than they are receiving, more nourishing food, better teaching, higher encouragement, nobler leaders.

Many students and teachers are doing injustice to themselves in their adherence to rural habits of speech after entering higher walks of life. It is preventing them from realizing the all important presence and meaning of style and atmosphere as evoked by care and precision, by vision and imagination, in the language of foreign writers. This is part of the indifference to quality of sound, to clamour and strident noises, which is a puzzling trait in an otherwise sensitive people.

But change is coming here, as in other things. Nothing has been so striking in all Japan's period of modern transition as the sudden and passionate devotion to the higher forms of western music. Some of us foreign teachers owe our personal friendship with great European musicians to the introduction of a Japanese friend. They are all finding it profitable and exhilarating to visit Japan where they find crowded houses and enthusiastic welcome. Ask Kreisler, Zimbalist, Godowsky, Hollmann, Miss Parlow or Madame Schumann-Heinck what they think of Young Japan. The dreariness of grunting parlour organs is over; in every corner of the land you will find gramophones and records of the finest classical and modern music. This and the advance of women's education, with the increasing opportunities for young people of both sexes to mingle in natural intercourse, are producing wonderful changes. I have sat beside one of the world's greatest musical performers and seen his emotion on hearing a chorus of Japanese young men and women sing Beethoven's *Elegische Gesang* as beautifully and feelingly as any choir in the homelands.

This is the greatest fruit of the Great War which has fallen to Japan's share, the realization of what the best music means in our lives, its consolations, its revelations, its rebuke, and its power of exaltation. And in no branch of education can such a wonderful advance be seen as in music recent years. This is a greater matter than it may seem, first because it is making for community of emotional experience beyond the frontiers of race and secondly it is part of that

imaginative renaissance, that emancipation from tradition and rigidity in expression of thought and feeling, which is the most vital need for Japan to day in doing justice to the interpretation of her high ideals.

A NEW LIGHT ON RIGVEDIC CULTURE

By DR. RADHA KUMUD MOOKERJI, M.A., PH.D., M.L.C.

The story of the Rigvedic Rishis, Madhu Chchhandā and Viśvāmitra, if properly read, is likely to throw a new light on Rigvedic history and culture and make us change some of the established notions on the subject.

The name Madhu Chchhandā is like a title and literally means 'one whose wish (*chhanda*) is always good (*madhu*), who wishes well of others,' or 'one whose poetry (*chhanda*) is sweet,' or 'one whose poetry is addressed to Madhu or Soma.' He is the son of Viśvāmitra, 'the friend of the universe.'

Viśvāmitra is the son of Gāthī (called Gādhī in the Purāṇas), 'the maker of Gāthās' which are preserved in the Ṛigveda.

An ancestor of his is known as *Kuśika*, a chief of the Bhoja tribe, who founded a small State by his prowess. His descendants were known as *Kuśikāsaḥ*, the term used by Viśvāmitra himself. But *Kuśika* was not merely a military leader, but also a Ṛishi. One of his hymns is still traced in the Ṛigveda. Viśvāmitra by his knowledge made himself prominent among Brahmins and Ṛishis. He is the author of a large part of the 3rd Maṇḍala of the Ṛigveda. He has referred to his own people as '*Ime Bhojāḥ*,' 'these Bhojas,' in performing their worship or sacrifices. In one hymn, he prays to Indra to put him in possession of the kine of the Kikaṭas and the riches of King Pramaganda as well as his country called Naichāsakha. Here Kikaṭa-Pramaganda = Magadha, while Bhojapur was in Magadha and is still traced in Shahabad district in Bihar. Thus Viśvāmitra was a man of Magadha with whose king he was not on good terms, as stated in the prayer. Probably his people, the Bhojas, had suffered long and much from the tyranny of Pramaganda.

The question of Viśvāmitra's native place is bound up with the general question of the origin and expansion of Ṛigvedic civilisation. The manner of his reference to the Kīkaṭas demonstrates that he must have been their neighbour, and not a man of the Punjab as is generally supposed. And if this position is correct, it proves a further fact that even by the time of Viśvāmitra, the whole of India from the North-West Frontier up to the land of the Kīkaṭas in eastern India had been brought under the sway of Ṛigvedic civilisation. In this connection, we may recall the passage of the Śatapatha Brāhmaṇa mentioning Rāhugaṇa Ṛishi as the Purohita of Mādhava, King of Videha. His son, Ṛishi Gotama, is the author of many hymns preserved in the Ṛigveda. We may add to this the most significant fact related in the *Brāhmaṇas* and the Upanishads that Videha under King Janaka was pre-eminent as a seat of Vedic culture, to which were once invited all the learned Brāhmaṇas of the Kuru-Pāñchāla country to take part in the proceedings of a big philosophical Congress summoned at his court by King Janaka. The exponents of the different philosophical schools of the time were all there, and warmly participated in the discussions of the Congress, while there were two outstanding figures among them, one, the lady Gārgī, and the other Ṛishi Yājñavalkya. This remarkable development of Vedic culture in eastern India was no doubt mainly due to the work of its pioneers Viśvāmitra and his family for several generations.

Just as Ṛishi Yājñavalkya of the Western Pāñchāla country became associated with a king of eastern India as his court-philosopher and teacher (and also as his pupil in some special doctrines), Ṛishi Viśvāmitra of eastern India became intimately associated with a paramount king of northern India named Sudās. It appears that King Sudās invited him for his pre-eminence as a Ṛishi to take part in his great Aśvamedha sacrifice. The Ṛigveda tells of his coming to the Punjab in a cart drawn by bullocks. The beauty of the two rivers Śatadru (Sutlej) and Vipāśā (Ravi) which burst upon his sight on his journey moved him to describe it in striking poetry in the Ṛigveda. This description has been wrongly taken to mean that Viśvāmitra was a dweller on the banks of the Śatadru.

In this connection we may also consider the story of Śunaḥkshēpa as related in the Aitareya Brāhmaṇa. It tells of Viśvāmitra as the

teacher of a large school or Parishad which included as students his hundred sons as well as many pupils from distant lands. But Viśvāmitra could not find among his numerous sons and pupils any worthy one who could be trusted with the new Veda which he had himself added to the old, the hymns of his own revelation. He at last found such a fit pupil in a poor boy Śunaḥkshepa whom his father Ajigarta had sold for his poverty, and was secured by Viśvāmitra. Impressed by his capacity, Viśvāmitra changed his ugly name into the significant name *Devarāta*, i.e., *Deradatta*, a gift of the gods, because Viśvāmitra considered him to be a godsend. Assembling all his hundred sons, he told them that he had adopted Devarāta as his eldest son to whom he would impart Brahnavidyā and make their leader. This led to a schism among his sons, half of whom were prepared to own Devarāta, as their chief, but the other half were not prepared to do so. Viśvāmitra in anger dismissed these from his Parishad. Thus expelled from their native country, these disowned sons of Viśvāmitra settled down among the aboriginal peoples like Puṇḍras, Śabarās, Mūtibās and Andhras, as their priests. Madhu-Chhandā was the chief of the loyal group and continued his father's work.

Viśvāmitra himself was the pupil of a renowned Ṛishi whose name was Palasti Jamadagni. The word *Palasti* means one whose hair was falling (Palita Keśa) with age. Viśvāmitra describes the learning of his Guru as flowing in hundred streams of unfathomable depth (Śatadhāraṁ utsaṁ akshīyamānam), so versatile and profound was his learning. Fondly, he calls him *pītarām* (father) and *vīpaschitam*, the chief among the learned. The term *pītarām* indicates that Viśvāmitra lived with his guru as an *Ante-rāṣī*. He further describes him as *Vaktvānām Melim* (=Vaktavyāṁ Vedavākyānam Melakam), i.e., as one who by superior wisdom could reconcile conflicting views that were advanced in the discussions of the Parishads by both the Pūrva-Pakshas and the Siddhāntins. His praise of his guru reaches its climax in the expression: *Madantam Pītrorupasthe* (Pītroḥ dyāva-prithvyoḥ upasthe antarāle madantam jñānātīśayena hrīshyantam), i.e., one who is filled with divine afflatus by the exuberance of his knowledge in supreme detachment from earth and heaven.

Viśvāmitra also was a worthy pupil of a worthy teacher. In Rv. III. 53, 15, he himself states that the knowledge he had received

from Jamadagni was spread by him in different directions in the shape of the many new hymns of his own revelation by which the cult of yajña spread far and wide, so that the whole country was resounding with the utterance of Ṛiks at sacrifices. He describes himself as the vehicle through whom Vāk-devī distributed the knowledge that brings immortality.

THE PLACE OF STRINGED INSTRUMENT AND FLUTE IN THE DANCES OF GREECE AND INDIA IN ANCIENT TIME.

By MR. D. OJHA, M.A., LL. B.

My study of Greek and Hindu civilization has greatly amazed me to find how distant in ancient times the two countries were, yet how near were they in cultures and mode of thinking. The coincidence is to be met with not only in Philosophical Concepts, but in the sphere of dance and drama also—the reflection of a nation's social side of life—they thought and acted alike. Maybe, they both originally belonged to the same stock that their cultures even after separation developed on similar lines; or maybe, in ancient days, there was a great contact between the two countries.

In ancient Greece, as in other countries, the earliest Dance-form is found in Ballad-Dance, which combines speech, music and that imitative gesture, which may be termed dancing. The real dancing of the Greeks is a lost art. Dances in which men and women joined were almost unknown to Greek antiquity. Greek dancing was an art which used bodily motion to convey thought. It was perhaps the supreme art of an age, which was the great period of the world for bodily development. The Greek dance, in the enthusiastic words of Charles Kingsley was “ a dance in which every motion was a word and rest as eloquent as motion; in which every attitude was a fresh motive, for a sculptor of the purest school, and the highest physical activity was manifested, not as in coarse comic pantomines, in fantastic bounds and unnatural distortions; but in perpetual delicate modulations of a stately and self-sustaining grace. ”

In time Greek dance found its highest expression in drama, which is thought expressed in action; and in Greek antiquity, divine worship as a whole shows traces of a dramatic character. The worship of Bacchus was a great Intemperance-Movement for the ancient world. Dithyramb was a form of Ballad-dance, used in the festival worship of the God Dionysus better known by the name Bacchus.

The worship of Dionysus was foremost in displaying that wildness of emotion in ancient religion, which has bequeathed to modern language the word 'enthusiasm,' a word which in its structure suggests how the worshipper is "filled with the god". In the beginning Dithyramb was a "Comus" or wandering dance. The votaries of the god Dionysus or Bacchus wandered through woods and mountains, their flying locks crowned with ivy or snakes, brandishing woods and torches, to the hollow sounds of the drum and the shrill notes of the *flute* with wild dances, and insane cries and jubilation. This condition of ecstasy is thus vividly described by Shelley in his "Ode to the West Wind":—

"There are spread

On the blue surface of thine airy surge,

Like the bright hair uplifted from the head

Of some fierce Mænad ev'n from the dim verge

Of the horizon to the zenith's height

The locks of the approaching storm."

Or you might compare the worshipper's condition with the speech of the Moon to the Earth in *Prometheus Unbound*:—

"I, a most enamoured maiden

Maniac-like around thee move

Like a Mænad, round the Cup

In the weird Cadmean forest."

The Comus of the merry Dionysus was a ritual of romping, given up to self-abandon and the joy that cannot contain itself; nothing less than a whole countryside would suffice for its evolutions and arbitrary wanderings; it was inspired by a sacred zeal for violating ordinary conditions, accepted costume being exchanged for disguise,

the decencies of life for Satiric licence, and routine giving place to a festal holiday in which work was a crime, excess a law, and probability or coherence of thinking a mistake. Even to a Bacchic orgy there was a higher and a lower slide. The Dithyramb . . . was the direct address to the jolly god of nature; the Phallic Procession gave vent in yet wilder abandon to the loosest of nature joys. It would be specially appropriate to the rural dionysia—the harvest home of the vintage, or the greater dionysia which celebrated return of spring. For this wandering dance of joys, ecstasy and wild jubilation, the musical accompaniment, besides the drum, was the *flute* in ancient Greece.

To an English reader, such a ritual is best brought home by the fossil Comus which is still to be seen among the traditional customs of a remote country district. There is the Cornish Flower-Dance, or Furry (fer-a fair or jubilee) which is kept up at Helstone on the 8th of May. From an early hour the place is alive with drums and pipes, and townsmen hoarsely chanting a ballad, the burden of which conveys the spirit of the festival :—

With Hal-an-tow
Jolly rumble O,

And we were up as soon as any day O,
And for to fetch the summer home,
The summer and the May O ;
And winter is a-go, O,

Thus singing they troop through the town. Until dusk they dance hand-in-hand down the streets, and through any house, in at one door, out at another; when night falls they keep up the dancing indoor. The character of the dancing is exactly that of ancient Comus.

In time the Dithyramb was made *Choral*. “Choral” is from *Chorus*—a term originally of dancing. With this change in Dithyramb, dance was confined to a dancing-place or “Orchestra.” Just as “Comus” was accompanied with the *flute*, “Chorus” was accompanied with the lyre—a stringed instrument.

The Chorus was a form of art embodying beauty ordered by law. It was created by the aristocratic Dorians, the race of military discipline, and was sacred to Apollo, whose lordship was over the brightness and subtlety of intellect.

It should be noted that as music holds in the modern world the position occupied by dancing in antiquity, so it has taken over many of the technical terms of this lost art. "Chorus" is one example amongst many of expressions that convey musical association to us, but are terms originally of dancing. The "Chorus" was the most elaborate of the lyric Ballad-Dance—lyric, because, though it retained all the three elements of speech, music and gestures, yet it was moulded and leavened by music. In Greek poetry stanzas ran in pairs; strophe and anti-strophe; the meter and evolutions for the two stanzas of a pair were the same down to the minutest gesture, but might be changed altogether for the next pair. An ode was thus performed. The Chorus started from the altar of the God in the centre of the orchestra, and their evolutions took them to the right. This would constitute a strophe, whereupon they turned round and in the Anti-strophe worked their way back to the altar again. A second strophe, very likely accompanied with a change of rhythm, would take the dancers towards the left of the orchestra, in the corresponding Anti-strophe they would retrace their steps to the altar again. The process would be continued indefinitely; if there was an odd stanza it was performed round the altar, and called an Epode.

With such characteristics of form the Chorus represents the highest achievement of lyric art. The contrast between Chorus and Comus reflects the contrast between the two national deities to whose worship the dances were consecrated—Apollo, the intellectual God of the stately Dorians and the passionate Dionysus of the excitable Ionic people. One represented the intellect and the other represented emotion. It is thus noteworthy that a *stringed accompaniment* was used for the Dithyrambic Chorus when it was applied to *serious*, and a *flute* accompaniment when it was applied to *lighter* purposes.

When we turn to India, we find that every god and goddess there is music-minded. Shiva dances, Saraswati plays on the Vina. Indra plays on the flute; Brahma beats time with cymbal, and Lakshmi sings a song and Vishnu plays on Mridanga (Drum). Again Shiva is also known as Vina-Dhara—the holder of Vina (Lyre); and Krishna plays on the immortal flute, and is known as Murli-Dhar—the possessor of the flute. The natural aptitude and characteristics of both Shiva and Krishna can be discovered by the musical instrument by which each

is recognized. Who will deny that Shiva is not serious and Krishna is not wild and jovial ?

The images of Shiva are of five classes, namely, the Samhar-Murtis (or destructive aspects), the Anugrah-Murtis (or boon-confering aspects), the Nritta-Murtis (or dancing aspects), the Dakshina-Murtis (or the Yogic, musical and philosophic aspects), and other minor one. Shiva is the greatest Yogi and philosopher; and as a great master in the art of dancing, he is often represented as dancing any one, of the hundred and eight modes of dances detailed in the *Natya Shastras* and as a master of music, he is portrayed as sitting or standing and playing upon the *Vina*, the most perfect of Indian stringed Musical instruments. In this capacity he is known as the *Vinadhara-Dakshina Murti*.

The description of the image of this aspect of *Dakshinamurti* is found in the *Kamika*, the *Amsumadbhedha* and the *Karanagamas*. The *Amsumadbhedha* states that the left leg should be kept in the *Utkutika* posture and the two front hands should hold the *Vina* ; the rest should be exactly similar to the description of the *Vya-khyanamurti*. According to the *Kamikagama*, the *Gana-Dakshinamurti* should have his front right and left hands held in the *Kataka* pose, the former with its palm facing below and the latter facing above. The *Kataka* pose being slightly different in form, the *Kamikagama* calls the pose the *Sarpakara*. The left arm should be lifted up and the right arm lowered below, so as to hold in proper position the long handled musical instrument, the *Vina*. The *Vina* should be held at the top by the left hand and by the right hand at the lower end; the resonating body of the instrument should rest on the right thigh. The lower right hand should be manipulating the strings of the instrument.

The Measurement of the *Vina* is given as follows :—The *Vina* should be projecting three *Angulas* beyond the right thigh and four *Angulas* above the left *Kataka-hasta*. The distance between the two points specified above is the length of the *Vina-Danda* or the hollow shaft of the instrument whose width at the top should be two *Angulas*. The gourd resonator attached at the lower end should be six *Angulas* in diameter and three *Angulas* in height.

In other papers I have developed and described the nature of Shiva's dance and its deep philosophical interpretations. Benares

provinces developed and perfected the Concept of Shiva as Yogi and Southern India perfected His Concept as Nataraja—the prince of dancers. Shiva is serious and so are his dances. No wonder that he holds *Vina* in his hand.

The colour, according to the Karanagama, of the Nrityamurti, of the Kanakalamurti and of the Dakshinamurti is to be white ; while that of all other aspects of Shiva, coral-red.

In ancient days, Muttra was the centre of the Krishna cult. Krishna was a great dancer as well. Just as Shiva is Nataraja, so Krishna is Natwar. He is the master of sprightly dances and as the player on the flute he is called Murli-Dhara—holder of the flute or the pipe.

The most popular festivity round about Muttra even now is *Holi*. It is observed for several days in succession at different localities. At Barasana, the festival is known as the *Rangila Holi*, and a sham fight takes place between the men of Nandgaon and the Barsana ladies, the wives of the Gosains of the temple of Ladliji. At Kosi the Jat inhabitants indulge in a more elaborate performance, which consists largely of dancing. successive troops attired in high-waisted, full-skirted robes, called *Jhaga*, and red *Pagries*, in which is fixed a tinsel plume, called *Kalangī*, taking part in the show.

At Bathen the ceremony is known as the *Holanga Mela* ; and here again a sham fight takes place between the Jatnis of the village, armed with thick sticks (lathis), and the men of the neighbouring village of Jau armed with the boughs of the prickly acacia.

The scenes depicted in these various performances are clearly relics of the primitive worship of the powers of nature on the return of spring. The festival of the Holi in Muttra district is largely connected with the worship of Radha Krishna, and Balram.

It is usual to speak of Muttra as the headquarters of Vaishnavism more specially under the form of Krishna worship, and Benares as the centre of Saivism.

According to the Agamic teaching Shiva is Pasupati, Lord of flocks. Hence man is called Pasu, the Lord's Creature. His body is unconscious ; he himself is conscious. The Pasu is, in his own nature, the abode of eternal and omnipresent Chitsakti, mind-energy. But the Pasu is bound by Pasa, the bond, (and it is three-fold, Ajñāna, Ignorance, Karma) the result of his action, Maya, the material cause of

the world. Fettered by the bonds, the Pasu is finite, restricted being, bounded by his body. Sakti, the grace of the Lord, leads the soul to liberation.

Vaishnavism centres round Krishna, and Krishna cult brought into prominence the path of devotion. The supremacy of emotion over intellect. Muttra played in India the same part which India played in Greece. Devotees forgot themselves in dizzy raptures and danced for sheer joy. The pipe of the Lord became the symbol of self-surrender and devotees—the simple folk—danced madly to the tune of the Lord's flute. Thus His flute became the symbol of mad and ecstatic pursuit of the Lord of all.

Philosophy and deep speculations proved hopelessly out of tune in a condition like this, when the devotees forgot their very existence. Cold philosophy was unsuited for the occasion. Simplicity was the keynote and the religion of the heart held sway.

Krishna played as shepherd for his simple devotees and both in Greece and India, a shepherd's musical instrument is the simple flute and the simple song and the simple environment of nature. Here unvarnished and unembellished love finds expression through the deepest emotion of the heart. Love holds court unrestrained, and the Lord of love accepts the homage of simple love and simple self-surrender of His devotees and followers.

Shiva represents the supremacy of the Intellect over the Heart and Krishna of the Heart over the Head. Humanity itself is divided into these two groups : one follows the Head and the other the Heart. Shiva is adored in the temple and the devotee sits and plays on the Lord's *Vina* to enter His Abode ; while the other pipes his heart out in the forest and madly calls upon His Lord to sing and dance with him and the Lord appears as his devotee's great *Sakha* (friend) even now as He did appear in the days of yore at Brindaban.

It is generally thought and maintained that after the conquests of Alexander, the spirit of Asia enters into every department of Greek life and culture so thoroughly that many Asiatic ideas dating from the earlier times are falsely supposed to be due to the preponderating Oriental influence which then set in. Thus the legend of the connection of Dionysus with India is believed to date from post-Alexandrian times, and to have arisen from the desire to institute a comparison between

Alexander the Great and the wine-god. Gladys M. N. Davis in "the Asiatic Dionysus" has tried to establish from authoritative Sanskrit and other texts that centuries before the Macedonian conquest, a far closer parallel to Dionysus already existed in the East.

KIPLING AND "THE BUBBLE REPUTATION"

By MR. K. K. MEHROTRA, M.A., B.LITT.

I

The whirligig of literary taste moves on, toying with the fame of literary men, and a study of its movements is fascinating. The legend of Cockneyism which clung to Keats during his lifetime, and which, some say, shortened his career, was forgotten a few years after his death; the poet who at one time had been advised to go back to his "pills" and "plasters" became the inspiration of a new school of poetry and art. "That damned atheist, Shelley" about whom, in 1821, the *Literary Gazette* was curious to find out if he had "a cloven foot, or horn, or flame from the mouth," became an "angel" in the conception of a Matthew Arnold half a century later. Tennyson, Wordsworth, Pope, Shakespeare, they all have had their ups and downs in the march of time; even the immortals have not been allowed to sleep peacefully on their laurels. Are there any laws which govern the birth and death of Fame?

Our view of the place and significance of literature in relation to life is changing. The old conception of literature as produced by an author looking upon life through eyes in a fine frenzy rolling, and himself belonging to an eccentric race of beings dwelling apart, guided only by divine inspiration, or by laws of his own making, or by those of Aristotle, Men of Taste, or Wits—this view of literature as something having a cultured and select origin, is giving place to a deeper and more socialistic conception in which literary production is but a manifestation of the deeper underlying forces of society and rises from the very womb of life. Starting with this recognition of the organic quality of literature, we shall realize that a writer's reputation also is

closely wedded to the march of human ideas, and to social and political conditions.

The relations between the author and the public, of course, present a very complicated problem; whether the author has influenced the readers, or whether the readers' demands have created the supply, can never be settled with any definiteness; the boundaries overlap. Considering, however, the relations of writers like Shakespeare, Milton, Pope, Johnson, Wordsworth, Tennyson, Shaw, to their times, it is possible to make the general deduction that the authors who have become the outstanding figures in the history of literature have stood in relation to the public in one of two ways: either as leaders of revolt, pioneers breaking new ground, prophets who with clearer vision have indicated the direction which events in future should, or are likely to take, harbingers of an age yet to born; or secondly, as Laureates of the period in which they live, not merely idle singers of paeans in praise of themselves, but writers combining and reflecting the thought, feeling and aspiration of a large section of society, the finest fruit and flower of their time, the true representatives of their age and of its excellence. Between these two categories fall the pedestrian writers filling the ranks, and even some eminent ones, who, in one way or another, are the imitators or followers of the Laureates and the Prophets. The tide of a writer's popularity ebbs and flows according to his conjunction with his environment. The Laureate is certainly assured of an immediate popularity but he dies as soon as the theme of his song ceases to inspire a wide response, unless there is an intrinsic quality in his work, a principle of vitality that refuses to die a contemporary death. Tennyson's ode to the Duke of Wellington has survived not because we are interested in the Duke, but because the Duke has been raised to a certain level of universality. It is the eternal behind the individual which makes it live. A pioneer or prophet, on the other hand, cannot count upon immediate recognition. In all likelihood he will come to life after death, and for his reward, he may be assured of a posthumous fame, if and when, time justifies his message. It is possible for reputations to revive even after a lapse of centuries. Donne lived at a time when the Ptolemaic conception of the universe was tottering, and Galileo and Kepler were carrying on the work of Copernicus. The old world crumbling giving place to new, which left its mark on some of

the work of Donne, is a situation analogous to the present one, and the revival of Donne has been explained on the ground of his modernity!

However fragile, airy and wayward the bubble of reputation may be, it seems that it is not as wayward as is sometimes imagined, and there are some laws and forces controlling the vicissitudes of literary fame. A consideration of Kipling's career provides an excellent illustration and commentary on the subject.

II

During the last fifty years there are few writers who have had a more chequered career than Rudyard Kipling. He has been the darling of a nation; he has been raised to the rank of a national hero; and he has been thrown down from his pedestal by the same people who placed him there. There was a time when it was said of him in an affectionate tone of parody, with a feeling of pride:

There's a little round-faced man,
Which is Kips,
Writes the finest stuff he can,
Our Kips,
Takes the cake fer fancy prose,
Has the Muses by the nose,
Makes us all sit up in rows--
Don't yer, Kips?

* * * * *

O, 'e's eyes right up 'is coat,
Little Kips,
An' a siren in his throat,
Rudyard Kips;
An' when that siren vents
All yer ear-drums feels in rents,
An' the listening continents
Says "That's Kips!"

But fourteen years after the composition of the above lines occur the following remarks in a review¹ of Kipling's "Songs from Books," by J. C. Squire :

"Francis Thompson said of Shelley: 'He is gold-dusty with tumbling amidst the stars.' This is what Mr. Kipling would like to be, but he has never seen anything nearer a star than a firework. His occasional talent for vigorous rhythm is the only specifically poetical gift he has. Spiritual inspiration and imaginative vision he lacks completely. He is not a man through whose lips breathe promptings from the hidden forces at the heart of Nature: he is a man, who meant to play the piccolo of the temporal, insists on trying to blow the trumpet of the eternal. And every time he blows the trumpet he blows the gaff."

The purpose of the following pages is to account for this startling change of tone and to consider whether such a somersault is a mere matter of whim, dependent on the caprice of popular taste, or whether it is conditioned by some deeper forces, social, literary or political.

III

Kipling is frequently compared to a meteor or a rocket that shot through the heavens of the 1890's, and this comparison gives a true indication of the suddenness of his rise to fame. Relating his reminiscences of the last years of the 19th century, Sir Arthur Quiller-Couch mentions an occasion on which he was sitting by the wine listening reverently to Henry James one evening, when the novelist "suddenly and irrelevantly stopped an involved sentence with an 'Oh, by the way! Have you heard of a wonderful new man, who calls himself, if I remember, Kipling, and seems to me almost, if not absolutely, a portent?'" A portent he was.

The work of Kipling first became known in England about the year 1888 when English editions of *Soldiers Three*, *The Story of the Gadsbys*, *In Black and White*, *Wee Willie Winkie* were published. In 1890 appeared the first English edition of *Plain Tales from the Hills*. Kipling's recognition was immediate. Writing in 1891, Edmund Gosse

¹ From *The Daily News and Leader*, Oct. 20, 1913.

said: "Two years ago there was suddenly revealed to us, no one seems to remember how, a new star out of the East. Not fewer distinguished men of letters profess to have 'discovered' Mr. Kipling than there were cities of old in which Homer was born."² The work of Kipling cast its spell upon Edmund Gosse instantaneously. "From the first moment of my acquaintance with him," he wrote, "it has held me fast. It excites, disturbs, attracts me; I cannot throw off the disquieting influence." In an article in *The Bookman*³, the same year, Robert Lynd admitted how "furiously popular" Kipling was and spoke of him as "an infant Prodigy imported all the way from India, where he has performed with applause before all the crowned, uncrowned, and dis-crowned heads." When the *Barrack-Room Ballads* were published in 1892, enthusiasm ran even higher, and in 1893, writing in *Merry England*, under the caption "The Soldier's Poet," Alice Meynell became eloquent in the praise of the new poet. Although, in her opinion, the characteristics of the soldier are so marked and definite and obvious that it is not difficult to speak *of* him, "to speak *for* him as Mr. R. Kipling does in these unforgettable ballads, is to have the genius of dramatic literature in high power. Moreover to make all this sing with an irresistible music is to be a true lyrical poet. These are strong words, but Mr. Kipling has the lyrical quality that makes the slang, the picture, and the music one."

While admitting the popularity of Kipling with the general reader, all critics do not, however, open their arms to the new writer unreservedly; if not quite hostile, some are at least cautiously restrained. Robert Lynd admitted that he was puzzled by the "perplexing form" in which Kipling's work was presented and he called it "a stumbling block." And although his critique is, on the whole, favourable, he is not very hopeful or optimistic about Kipling's future achievement. "He may strengthen but he cannot alter his place in literature," he said; "that place is not beside the great masters of imperishable fiction, but high among those vivid, vivacious, but fragmentary painters of life and manners, by whose imperishable aid, as de Caylus aptly says 'on sait vivre sans avoir vécu.'"⁴

² *Questions at Issue*, by Edmund Gosse, London, 1893.

³ October, 1891.

⁴ *The Bookman*, November, 1891.

A more unappreciative and unfavourable notice appeared in the *British Weekly* of June 22, 1893 : "Those whom the odours of tobacco and blood do not sicken are at once fascinated by Mr. Kipling's qualities. He produces immediate effects or he does nothing." The writer admits that Kipling is "audacious, vivid, brief, strong," and that "he knows one corner well," but he adds that "in his hotly glowing pictures, we find no deep sympathy with humanity, no intelligence of obscure virtue and endurance, no ear for the clash of spiritual armies," and sums up the work as being "on the whole, brass-band poetry—exciting, but hard, noisy, and tiresome."

The defenders of Kipling quickly took up the challenge. Colin Weird, writing in *Great Thoughts* in 1894, adopted the defensive attitude. "The presumption," he protested, "is that the work which meets with immediate approbation is probably wanting in the higher qualities which alone will preserve it from ultimate oblivion; but it is not always so." In a more aggressive tone, Goring Cope took those critics to task who had accorded a lukewarm reception to Kipling and expressed himself strongly on the subject in the *Gentleman's Magazine* of 1892. Indirectly he indicates the reactions of conservative critics, and reveals the grounds of objection against the new writer : "The critics . . . call him abrupt, he whose work is polished and clean-cut as the Crown diamonds. They call him illiterate, because he thinks more about the live present than the dead past. They accuse him of giving prominence to the seamy side; more commendable conduct than ineffectual lying about its existence. They sometimes say he is coarse, and the firm of Grundy and Podsnap have proved as eager as usual to take up the cry."

Thus we see that Kipling's work, on its first appearance, did create a stir and to use the hackneyed phrase, even a storm. With the multitude of readers he gained immediate popularity; and although, when coming in contact with the new work, a few critics, applying old tests, bristled with objections as against a rude invader in their sacred precincts, the literary world also, on the whole, was not slow to acclaim, acknowledge and worship the rising sun. How can we account for this enthusiastic popularity? In which class shall we group this writer? Was he a pioneer or prophet, or was he a new-born laureate? Rudyard Kipling was all these simultaneously; he was fortunate to appear at an excep-

tionally favourable moment; and it is this combination which accounts for the fascination he exercised in a phenomenal manner over the minds of Englishmen in the eighteen-nineties.

Kipling has been compared to a meteor because of his sudden and dazzling spring into prominence; the comparison will lend itself also to another interpretation. Kipling's work in the 1890's is so unusual, unique and startling, that it is possible to treat of it as an isolated phenomenon. He falls into no known school of the time readily; he has no orthodox masters. His has been no traditional coaching and his manner is his own. Yet, in spite of this, he burst upon the scene like a long-awaited god. The reason for this was that however free from literary tutelage and antecedents Kipling may have been, his contact with his generation was close and intimate. Because of the newness of his metre and manner, he had all the freshness of a pioneer and prophet; but the currents of thought of the period had left such an impress upon him, and he was so much a child of the soil out of which he grew, that Kipling had all the requisites necessary to give him the place and popularity of a laureate of his generation. Not merely literary influences, but life itself produced Kipling. The Jubilee of Queen Victoria, with its ceremonial that forced upon the minds of the Englishmen a realization, and a consciousness, of their sweeping Empire, the policy of Joseph Chamberlain, the school discipline at "Westward Ho!" with its emphasis upon the idea of duty and service, the opportunity of contact with the English-speaking peoples of the world provided by his travels round the globe, life in India and experience in a newspaper office, all these went to shape the genius of Kipling. In fact, it is this very contact with reality which gave Kipling his popularity in the eighteen-nineties even from the literary point of view. That divorce between life and letters, the signs of which became visible as early as the middle of the 19th century and which became intensified in the work of the Pre-Raphaelites, especially Rossetti and Swinburne, and which culminated in Pater, with his Puritannical epicureanism and Oscar Wilde with his epicureanism without the Puritan quality, was ended by the advent of Kipling. This poet with his glorification of energy, scoffed at mere aestheticism, and created his stories and novels and poems from the very heat and bustle of man's daily round of activity. Kipling did not dwell in airy regions of beauty, or merely cultivate exotic moods,

The noise and the blare of the market-place, nuts and bolts, the crude activity of soldiers, sailors, fishermen, workers, these resulted in the virility of his verse and his ringing, buoyant measure. Kipling transmuted life into literature, reality into a new romance. The delicate nerves of some were offended by his outspokenness, some were shocked and disconcerted by his bluntness and his realism, but merrily Kipling went on singing the psalm of life and labour, with a twinkle in his eye and the zeal of a prophet. Even Oscar Wilde was forced to admit, though not without a touch of contempt, that Kipling "reveals life by superb flashes of vulgarity!"

The presence of the very breath of life in Kipling's work was recognised by contemporary critics also. Colin Weir said of him in the article referred to previously: "Of all the writers of the age who have been dubbed 'Realists,' perhaps no one has a better title to the name than Kipling. Whether his sketches be absolutely and rigorously true to life or not, they convey an extraordinary impression of reality to the reader. . . . The picture, like the reality, is on the whole ugly and repulsive, but it is good for us now and then to see things as they are and know them for what they are." Robert Louis Stevenson also praised Kipling for the "lot of living devil" which he had in him. "It is his quick beating pulse," he said, "that gives him a position very much apart. Even with his love of journalistic effect, there is a tide of life through it all."

Taking the literary point of view, and with Henry James and Rider Haggard in mind, Edmund Gosse wrote in 1891: "Between excess of psychological analysis and excess of super-human romance there was a great void in the world of Anglo-Saxon fiction. It is this void which Mr. Kipling, with something less than one hundred short stories, one novel, and a few poems, has filled by his exotic realism and his vigorous rendering of unhackneyed experience."

But the aspect of his work which gave to Rudyard Kipling his national importance and his almost universal popularity was neither his literary importance, nor his realism, nor yet his philosophy of life, but his treatment of the soldier and the British Empire. It is this phase particularly which made him the recognised laureate of the time.

To appreciate what actually happened, we must first of all realize that the England of the last two decades of the 19th century was very

unlike the England of to-day. The cinema and association football, and the press with its cheap sensationalism, had not yet become the pre-occupation of the English public, and national events occupied a very prominent place in the life of the average man. In an article to *The Times* in 1932, the Earl of Middleton relates how, on the first arrival in London of the news of the death of Gordon at Khartoum in 1884, "people unknown to each other stopped to discuss the catastrophe in the street," so high did the feelings run. The spirit of hero-worship was still very keen. When walking with Lord Roberts to the War Office in those days, the Earl of Middleton tells us, he "was more than once accosted by a stranger asking if he could persuade the great soldier to shake hands with his son, who 'would never forget it all through his life.'" It was this mood of mind which gradually created the sense of Empire in the hearts of the English people, and which paved the way for the Imperial policy of Joseph Chamberlain. Enthusiasm ran high when Kitchener avenged the death of Gordon, and Khartoum was retaken. Simultaneously Cecil Rhodes was strengthening the English position in South Africa. The combination of these factors produced in the Englishmen of the time a feeling of solidarity and a consciousness of their tribe. In 1900, Richard Le Gallienne said "Mr. Kipling, so to speak, roused the sleeping nerve centres of Imperialism;" Kipling certainly was responsible to a large extent for the creation of this sense of Empire, but the thing was in the air and Kipling only responded to his environment in a sensitive manner.

An event happened in 1899 which makes clear to us beyond doubt the place which Rudyard Kipling had carved for himself in English hearts. While in America in that year, Kipling had an attack of pneumonia, and his condition became serious. The solicitude shown in England on the occasion is a revelation. In a leaderette, *The London Mail* stated emphatically, "Never perhaps, in any generation, has the illness of a man of letters been followed with such eager attention, and this is because he has come to be regarded as a great national and spiritual force. We cannot afford to lose him and that is the sober truth." The same paper says of Kipling, "He is a writer with an eye upon events. His ambition is not only to weave romance, but to record the history that is being made to-day." *The Spectator*, in an article entitled "The Great Interpreter" said: "The country has felt that if

it lost Mr. Kipling it lost its chief interpreter—the man who, best of all the present generation, can make it understand itself, its duties, and its high destiny.” The newspapers in England and America were full of Mr. Kipling and even the German Emperor enquired by cablegram about Kipling’s progress during his illness. On March 9, 1899, *The Daily Mail* boldly announced: “The literature of the 19th century ends with the name of Kipling; with the name of Rudyard Kipling, the literature of the 20th century will be happily inaugurated.”

It is not necessary to multiply instances further. It will be noticed that in the eight brief years, from 1891 to 1899, a definite change has taken place—the literary aspect of Kipling is submerged by the political one. Kipling is being exalted not because of his realism or vitality or freshness, but because of his Imperial message, and because there is much in his work that appeals to the patriotic sentiment. When the volume of poems, *The Seven Seas*, came out in 1896, the *Birmingham Daily Post* expressed the opinion: “There is the same swing and charm of movement, but it is made to embody a serious and exalted patriotism, which now and then touches sublimity.” Speaking of the *Recessional*, Stead wrote in the *Review of Reviews* with remarkable insight and understanding of the Kipling spirit, “The poet has idealized and transfigured Imperialism. He has shown its essence to be not lordship, but service. We can recall no nobler setting forth of the intrinsic ministry of empire. The whole presentation is steeped in the spirit of self-abnegation and self-sacrifice.” Richard Le Gallienne also in his book on Kipling revealed a consciousness of this phase: “The history of Mr. Rudyard Kipling’s reputation, in this spring of 1899, lies between two phrases. In 1890 we were saying to each other, with a sense of free masonry in a new cult: ‘But that is another story.’ To-day we are exhorting each other to ‘Take up the white man’s burden’ . . . The smart young Anglo-Indian story-teller is now a prophet. His fame is a church.” As a fit corollary to Kipling’s attitude towards the Empire, Kipling also came to be known as the “Laureate of the Red-Coats,” and during the Boer War, it is said, that on hearing his name the soldiers exclaimed, “God bless him! he is the soldier’s friend.”

With the end of the Boer War and the beginning of the new century, however, the stars of Kipling seem to have taken an unfavourable

turn. *Kim* came in 1901 and was hailed as a great book; but, in spite of it, as the century advanced, signs of a reaction against Kipling became gradually visible. Nothing was added to Kipling's fame between 1901 and 1914. It may be contended that, by 1900, Kipling's popularity had attained a point beyond which it could no further go; that may be; but Kipling failed even to maintain what he had already achieved. There was, of course, no sudden change or revolution. Some honours still came to him. In 1903, Kipling was fitly made the subject of a book in the "Makers of Great Britain" series, by Thomas Benfield Harbottle who speaks of him in a spirit of hero-worship, talks of India as "our great dependency," and expresses the opinion that "the portion of his life's work which will probably have the most lasting effect" will be "his glorification of the Imperialist spirit." In the same year *The Bookman* brought out an illustrated Kipling Number; in 1904, Max Beerbohm published *The Poet's Corner*, containing a cartoon of Kipling representing him taking "A blooming day aht on the blasted' eath along with Britannia, 'is girl." While reviewing *The Five Nations* in the *Daily Chronicle* in 1903, William Archer paid to Kipling the compliment of calling him "The Real Laureate," and said that Kipling had "enlarged the resources of English poetry in perfecting the Kiplingesque manner," but William Archer also made the reservation—and this is more to our purpose—"a single manner cultivated exclusively and to excess becomes a mannerism."

Events went on smoothly, and in 1907 Kipling was awarded the Nobel Prize, the first occasion on which an Englishman had been the recipient of this honour. It was a signal recognition and the country was proud of it; but there is a strange questioning cry which strikes rudely on ears attuned to the almost cloying praise of Kipling. A. J. Gardiner wrote a short sketch of Kipling,⁵ in 1907 or 1908, in which he expresses himself very strongly on the award of the Nobel Prize to Kipling, when Meredith and Hardy were still alive. "The goldsmiths are passed by," he wrote, "and the literary blacksmith is exalted."

The bubble of Kipling's reputation is broken; the sanctity of Imperialism is laughed to scorn; the Empire is no longer romantic for eyes that see things in a different perspective. According to Alpha of the

⁵ cf. *Prophets, Priests, and Kings* by A. G. Gardiner, London, 1914.

Plough, the advent of Kipling " proclaimed the beginning of a decade of delirium, which was to culminate in a great catastrophe, twenty thousand British dead on the South-African veldt and the Saturnalia of Mafeking night in London. The rocket that rose in the East completed its arc in the Transvaal. Mr. Kipling, in a word, was the poet of the great reaction. "This voice sang us free," says Mr. Watson of Wordsworth. It may be said of Mr. Kipling that "this voice sang us captive." Through all the crescendo of the 'nineties, with its fever of speculation, its Barney Barnatos and Whitaker Wrights, its swagger and its violence, its raids and its music-hall frenzies, the bard of the banjo marched ahead of the throng, shouting his songs of the barrack-room, proclaiming the worship of the great god Jingo."

What an elevation and what a fall! It is not possible to explain this merely as a disillusioned reaction after the Boer War enthusiasm. The 'nineties that saw the rise of Kipling also witnessed a change in another direction—in the expansion of the spirit of man and the birth of a new democracy. Whitman's voice was singing the brotherhood of the world, and the conditions which gave to Kipling his popularity were giving place to new ones. A new conscience was coming into being at this time. Close upon the publication of the *Barrack-Room Ballads* came the production of *Arms and the Man*; if Kipling was exploiting the sentiment of the English people, Shaw was providing the antidote. In the beginning, Kipling's was the more catching message, but the Shavian point of view went on gaining more and more strength with passing years. It is this point of view which creates, directs and influences Gardiner's attitude towards the bard. "And should we not do as we would with our own? The Indian in India, the Boer in the Transvaal, the Irishman in Ireland, what were they but food for our Imperial hopper;" as for the Empire, it was, in Gardiner's opinion, "an armed camp, governing by drumhead court-martial, its deity a strange heathen god of violence and vengeance." In 1909, the *Daily News* of June 29 said of Kipling: "His fame belongs to the past, and had he but refrained from publishing a word in the last ten years, how far higher his reputation would now stand!" Kipling had been a realist as compared with the aesthetes of the decadent school prominent at the time when he came to England, but he had been a romantic realist. A greater realism combined with

the growth of a rational, anti-sentimental attitude turned the tide against Kipling. Bernard Shaw had been levelling his sarcasm against the chocolate-cream soldier; there was Ibsen also with his rationalism; their voices may have been, for the time, drowned in the ovation which greeted Kipling, but soon they became audible and even aggressive. Even in English politics, in the early years of this century, the Tories began to lose ground, and the liberal party came to the forefront. There was a growing reaction against the romantic deification of war, and an intellectual tendency against narrow Imperialism. Kipling, however, did not lose his hold together; for instance, in 1913, *The Daily Mail* discussing the claims of Kipling to be the Poet Laureate said, "He has given the world new forms of thought, and he has expressed them by new methods. Above all, he has been able more deeply to stir and uplift the heart than any other living writer." The same year, *The Times Literary Supplement* in the leading article paid Kipling the compliment, "The best things he has written are about things which no change of policy or manners can corrupt - his first loves, ships and great engines, and the clutch of duty in the bare places." But, nevertheless, the signs of reaction also were growing. *The Public Opinion* of January 16, 1913, said of Kipling that "he, more than any other writer of his time, set to banjo music the restlessness of the youngman who would not stay at home. Mr. Kipling, in his verse, simply acted as a gorgeous poster artist of Europe . . . Mr. Kipling has put the worst of his genius into his poetry. His verses have brazen 'go' and lively colour, and something of the music of travel; but they are too illiberal, too snappish, too knowing, to afford a permanent pleasure to the human spirit." The opinion of J. C. Squire, about Kipling's being "a man, who meant to play the piccolo of the temporal, insists on trying to blow the trumpet of the eternal," has been quoted already.

Between 1900 and 1914 events had moved very rapidly and the years which saw the appearance of Kipling's early work in England were fast becoming legendary. But thirteen or fourteen years after the close of the century, historical studies dealing with its last decade began to appear. The period seemed to be so different that it was treated as belonging to another age in point of time. When in 1913, Holbrook Jackson wrote the story of the Eighteen-nineties even men who had lived

through them were surprised at the picture and on the appearance of the book, we are told, Shaw asked Holbrook Jackson, "Did all these things happen, or did you invent them?" This introduces us to another aspect of the reputation of Kipling. His popularity may have waned, but historians of the period, nevertheless, began to recognise his historical importance in the birth of modern literature.

Taking this point of view, Holbrook Jackson deals with Kipling in his book, *The Eighteen-Nineties*, in an extremely brilliant and penetrating manner. He regards him as "a big figure" in "the vital modernist movement of the Nineties . . . His was a definite expression of the modern movement towards the revaluation of ideas and life; and although his temperament was essentially conservative, his interpretation of what finally is a traditional view of life was so fresh and personal that it created the illusion of a revolution." "If his teaching at times seemed unnecessarily blatant, it possessed," according to Holbrook Jackson, "an undercurrent of courageous wisdom as far removed from blatant jingoism as jingoism is from the Imperial or patriotic idea." Holbrook Jackson's criticism has vision and balance, and the only drawback which one can possibly notice in it is that the author refrains from applying purely aesthetic tests and from expressing an opinion on the likely permanence of Kipling's work. But to be fair, although this may be called a deficiency, it can hardly be called a defect, since Holbrook Jackson was not writing a book on Kipling, but a history of "The Eighteen-Nineties." In this connection, one might mention Harold Williams also who, in 1918, in his book on *Modern English Writers*, summed up Kipling's position in the following sentences: "Mr. Kipling is the poet of Empire, colonial expansion and commercial activity, as the two things were imagined, at the close of the 19th century; and he is therefore almost wholly a poet to his contemporaries; nearly all his verse-writing is cramped by limitations of time and place, and of simple and essential poetry there is less to be found in him than might be hoped . . . As a poet he is essentially of an age. His popularity and credit have already waned. But in his place he is important as a finger-post pointing the way, indicative of much in a literary phase." This is the opinion of a historian who, in 1918, placed Kipling in the stream of time, and it may be taken as fairly representative of the general attitude; criticism, after all, is

but the application to literature, of the wide-spread ideals of the time.

How marked must have been the growing opposition against Kipling can be seen from even a book like Thurston Hopkins's "Rudyard Kipling: a survey of his Literary Career," published in 1914. The author adopts the defensive attitude, and argues against the popular conception of Kipling as "a tin-pot tickler," "a poisoner of the wells of magnanimity," "an imperial megalomaniac," or as merely "the banjo-bardlet." Whatever the value of the work of Hopkins—and Hopkins is a Kipling enthusiast—his point of view implies the presence of a strong hostile and derogatory section of opinion.

Before passing on to the next stage, one must not forget to mention a small book by John Palmer, published in 1915, in the "Writers of the Day" series, in which the author protests against the misconception of regarding Kipling merely as a journalist or a person only preaching the doctrine of Imperialism. "Mr. Kipling's Anglo-Indian tales," he says, "his presentation of the work of the Indian Empire, of the Anglo-Indian soldier and civilian—have an unfortunate interest of their own. They are mainly responsible for a misconception which has dogged Mr. Kipling through all his career. This misconception consists in regarding Mr. Kipling as primarily an Imperialist pamphleteer with a brief for the Services and a contempt for the Progressive Parties. It is an error which has acted mischievously upon all who share it—upon the reader who mechanically regrets that Mr. Kipling's work should be disfigured with fierce heresy; upon the reader who chuckles with sectarian glee when the 'much talkers' are mocked and confounded; upon Mr. Kipling himself who has been encouraged to mistake an accident of his career as the essence of his achievement and to regard himself as a sort of Imperial laureate." This is sane criticism and John Palmer makes the plea again and again that Kipling should be regarded primarily as a man of letters, but there was hardly any time for opinion to settle down, when the Great War had England and almost the whole of Europe in its clutches.

The War dragged on for a number of years; its disintegrating influence on life in all its phases is well-known. The old world crumbled to pieces; patriotism, sentiment, idealism, the glory of war, honour, valour, sense of adventure, fun of life, all these sounded mealy-mouthed

platitudes in the ears of those who had heard the thunder of guns month after month, and who had been hardened to the sight of blood and death. It is no wonder that the war brought a hornet's nest round the head of "The Soldier's poet." Like those duped, men scoffed at their former idol. The pre-war attitude towards war had been that "the call of our country is the call of God," but contact with reality soon changed this. To illustrate this attitude a passage may be quoted from Vera Brittain's "Testament of Youth," a spiritual biography of the last thirty years in England. Here is the opinion of one speaking from the War Front itself; in the old days, says Roland, "Men poured out their sweet wine of youth unknowing, for nothing more tangible than Honour or their country's glory or another's Lust of Power. Let him who thinks war is a glorious thing, who loves to roll forth stirring words of exhortation, invoking Honour and Praise, Valour and Love of Country . . . let him realize how grand and glorious a thing it is to have distilled all youth and joy and life into a foetid heap of hideous putrescence!" This was the reaction against the traditional, idealistic view, and Kipling's name was inseparably associated with such idealization of War and its appurtenances. Vera Brittain admits in one place that before experience had taught her otherwise, her knowledge of army doctors and nurses had been derived from the more idealistic poems of Kipling. Even as late as 1928, Robert Graves expressed his opinion that "Of course Kipling was one of the prophets of the war with Germany who helped to make it possible."

In the post-war attitude towards Kipling there is, therefore, a duality. After 1919 when the fever subsided and men looked round with more unclouded vision, Kipling once more found his champions and supporters. For instance, in his book on "People Worth Talking About" in 1934, Cosmo Hamilton said, "It is the fashion among critics to belittle the genius of those masters who are in the veteran class. They conceive it to be extremely clever to pluck the laurels from their wreaths and cast them to the winds. They are bored by H. G. Wells, they can see nothing good in Shaw, and they adore to say that all the magic has left Kipling's pen. In the adoption of this puerile attitude they prove a total absence of the critical faculty and place themselves among the flippant people of vast ingratitude . . . In the select

company of the great authors who are still alive, Kipling is the only one who in passing from one medium to another, has achieved five distinct fames." Kipling gets his recognition also in the honours that come to him. In 1926 he was awarded the gold medal of the Royal Society of Literature; he was made a Honorary Fellow of Magdalene College, Cambridge, in 1932; the Kipling Society came into being in 1927 "to do honour to, and to extend the influence of the most patriotic, virile and imaginative of writers, who upholds the ideals of the English-speaking world." But, in spite of all this, Kipling is not the universal god that he had become at the beginning of his career. The conditions are different, the air is full of the clash of new political and social theories. The Gospel of Pacifism, the Gospel of Communism, the Gospel of Socialism—the very diversity of Gospels is a condition which precludes the possibility of universal popularity. Moreover, there is much in the new philosophies which is the antithesis of the political significance of Kipling's work. It is not surprising, therefore, to find critics like Megroz, who, in his book on "Modern English Poetry" in 1933, spoke of Kipling as being "vulgar without being universal," as a singer of "hymns of hate and National vainglory," as possessing "a common-place mind betrayed into the service of base political purposes." The poetry of Kipling in the opinion of Megroz was merely "strident salvation-army-hymning improvisation on tags and phrases of vulgar speech."

One more illustration of this phase is worth considering. In 1928, Robert Graves contributed an essay to the volume entitled "Scrutinies." The article is subtle, thoughtful, even provocative, but definitely hostile. Kipling's politics are the stumbling-block. In a vein of irony and the joy of being untraditional, Robert Graves begins with a contemptuous tone: "The most superior critics of all have now decided to admit Rudyard Kipling to their Hall of Fame," and continues, "Kipling is a great man in the most traditional sense, the Lloyd-George Northcliffe sense; he is usual, traditional, the subject of mass-admiration, and no more to be argued away than the design on the postage stamp. The previous superior critics found that out long ago. There is no point in parodying him; you can't outdo him It is definitely untrue to say that he is unreadable; a set of Kipling has a certain sinister fascination for the reader, particularly the reader

recovering from influenza . . . And finally, he is the literary aspect of the British Empire." After this Robert Graves takes to pieces the character of 'the strong, silent Englishman.' The romantic idealism with which Kipling had surrounded this solitary scion of the Empire, sticking to his post in the marshes of Burma or the scorching heat of Lahore, is analysed, and the mainspring of action, it is pointed out, is not a sense of duty but self-interest and greed. The feathers are plucked from the Kipling hero one by one. The British Empire which earlier had been regarded as a mystical phenomenon has lost all its glamour; the opinion of Robert Graves as to the origin and function of it simply is that "the private trading company had been superseded by a public one, and the trader now for the most part drew his salary as a representative of the English state, like any other soldier or sailor."

With this hypothesis and on similar lines, Robert Graves goes on to prove that Kipling's ideal of life has no inner necessity, but that it is evolved to suit the exigencies of Empire; that the code of morals and manners which he propagated has no deeper springs than those of mere policy. Robert Graves applies Shavian logic to Kipling, and one is reminded of Napoleon's remark in *The Man of Destiny* where he asserts that "every Englishman is born with a certain miraculous power that makes him master of the world. When he wants a thing, he never tells himself that he wants it. He waits patiently until there comes into his mind, no one knows how, a burning conviction that it is his moral and religious duty to conquer those who have got the thing he wants!"

Leaving aside the question of the validity of this argument, one can say definitely that Robert Graves is unjust in denying to Kipling the honesty of his convictions. The spirit of Kipling is not mercenary, however much one might lament its direction. For our purposes, the attitude of Graves has an important bearing. It is indirectly a clear indication and analysis of the anti-imperial point of view which scoffs at the hero-worship of Kipling and which cannot identify itself with the old idea that "Empire over the undeveloped peoples is the White Man's Burden."

After describing Kipling's attitude towards the Americans and the Irishmen, and their attitude towards him in return, Robert Graves turns to the French and remarks: "The French, to whom he

[Kipling] has actually offered a verse garland, will probably treat him better—at any rate until the next war with us.” The first part of this prophecy has certainly come true. In 1933 Kipling received a unique honour. He was made the Foreign Associate of the Académie des Sciences Morale et Politique, an honour which before him had been conferred only upon King Albert and Cardinal Mercier.

This introduces us to another aspect of Kipling's reputation—his reception on the continent. Two of the best studies of Kipling in recent years have been by Frenchmen—André Maurois and André Chevrillon. André Maurois informs us, in fact, that Kipling is one of the most popular English writers in his country. This information is significant and suggestive; it is a corrective for those who can see nothing in this writer but the “banjo bard” of English Imperialism. It was unfortunate for Kipling that the merely topical loomed prominently in the eyes of a large section of his readers. This was perhaps inevitable, but if it had been otherwise, Kipling's reputation would certainly have taken a steadier course. The very factor which resulted in his flashing and nation-wide popularity was also the source of the reaction against him. The laureate is dead when his message loses its vitality, and in Kipling the “tribal singer,” unfortunately, subordinated and eclipsed the man of letters and the artist.

The French critics in many ways are also a good forecast, specially in view of the fact that it is not possible for any writer to be popular in any land unless his work appeals to the instincts, ideals and desires of, and arouses a response from, a large number of people. In these matters it is not so much a question of “receiving what we give,” but of taking what we want. There was a time in the early years of this century when the French people were in revolt against rising English Imperialism, and, in 1906, Kipling was satirised in a novel, entitled “Dingley, the famous Writer,” by Jerome and Jean Tharaud, a book crowned by the Goncourt Academy. To-day the political conditions have changed and Kipling is admired. It would seem that the political attitude can be, and was, a barrier obstructing, a sympathetic reception of him. What is it in Rudyard Kipling's work that appeals to the French people? André Maurois sums up the position with clarity in his recent volume entitled “Poets and Prophets” :—

“Robert Graves has spoken of Kipling as the literary aspect of

the British Empire. But the phrase hardly suffices to explain the intensity of feeling which Kipling's work gave to so many young Frenchmen at the time when the first translations were published . . . What we sought in Kipling, apart from the admirable stories, was first and foremost an heroic conception of life. That conception was neither exclusively British, nor exclusively Imperial. Kipling has shown that it was one and the same for the British officer isolated in the Himalaya, or for the French officer isolated in the Atlas. Again, it was neither exclusively military, nor colonial . . . The man of action is omnipresent in Kipling's work, whether he is building bridges or fighting famine, a Gurkhas' officer or a cotton-planter. His character is of the simplest. Neither love nor family counts for him so long as his day's work is not accomplished. . . . When a people is truly a people of *men*, then it can learn its lessons from ill-fortune, and even a defeat will become a weapon for the winning of victories to come . . . The political concepts of Kipling are ascetic and aristocratic."

Kipling's work concerns itself with the details, facts and realities of life to such a degree, his material is of such a nature, that however much he may avoid doing so, he is bound to ruffle somebody's susceptibilities "by a side wind." He deals with nations, continents, civilizations and the British Empire. This makes his message and his point of view even more liable to perversion and misinterpretation, especially in a country politically placed like India. But to get to the universal element behind the individual and the particular, to the spirit of Kipling's work behind an exterior that may not be universally acceptable, to the heart of the man behind the pre-occupations of the propagandist, it is very helpful to consider the reactions of a critic like André Maurois. Free from hampering associations which vitiate and distort, and because of which the work of Rudyard Kipling leaves a sour taste in the mouth of a large majority of his Indian readers, it is possible for these Frenchmen to receive spontaneous delight from the poetry and the stories of Kipling. The very fact that such enjoyment is possible is evidence that there is something more in Kipling's work than the praise of Englishmen as such, and of the Empire. As early as 1900, an English critic, Le Gallienne, recognised this when he said that "to do one's duty, to live stoically, to live cleanly, to live cheerfully" are the qualities which he 'nobly enforces.'

IV.

Now that Kipling is dead, the process of revaluation has started once more. At present the house is being cleared of the cobwebs of Jingoism and Imperial mania; in the dust of the moment much that is valuable in Kipling is becoming clouded, and is being passed over; but when the dust subsides, objects will again be seen in their proper perspective. The whirligig of taste moves on; the pioneer and the laureate in Kipling have had their day; what place the man of letters is going to occupy, time will decide. The iniquity of oblivion scattereth her poppy, but not always blindly.

THE VAMPIRE

By S. I. K.

As the tourist, putting the binocular to his eyes, surveyed the large, green valley before him, his gaze halted at a white building very far off, perched at the end of the ridge to the left. The voice of an old woman gathering flowers came from behind him. "That is the sanatorium—a good place, for many people come back cured and happy, unless, of course, the vampire has sucked their blood." And as a smile came over the tourist's face at her superstition, she added, "Oh yes, the vampire does that—sucks the blood with its own mouth whilst they sleep."

* * * * *

Mary, the young daughter of an English baronet, was a patient in the tuberculosis sanatorium. Here was a hereditary case, her mother had suffered from the disease in her youth. Mary, too, was expected to recover. She had fought with the disease gallantly. She loved the open countryside. She took interest, even joy, in life. But the disease germs worked their way. She became anæmic and listless; then she had fits and spasms and spat blood. Since her arrival at the sanatorium with a nurse she had been making excellent progress. The doctors were

pleased at her daily improving temperature, her keener appetite, and the daily reddening tint of pink on her cheeks.

Until there came a man from the West—

Andre, the newcomer, was a lad from France. He came in the evening of summer. His case was different from Mary's. He had 'acquired' consumption. He hated all out-door sport, and was a book-worm. It was not unusual to find him in the evenings reading by the light of a lamp, while outside it was yet more light than dark, and happy boys and girls were out in careless frolic in the open green lawns. He passionately loved the life of the lone man in the dressing gown, burning midnight oil while the whole world slept and silence was profound. There he would, sitting by his desk, scan pages after pages of a book as if he were some lonely working scientist who had staked his whole life on some mixture that might be the cure for a hitherto incurable disease. The result was that André became pale, his eyes dreamy; and a strange wistfulness came over his features. He became a phantom, a mere shadow of youth. Then somebody woke up to the fact and picked out the disease from the midst of health, and sent him to the sanatorium in Hungary.

Soon after his arrival at the sanatorium he met Mary while they were both leaning against the balustrade, looking at the beautiful mountain scenery spread out before them like a dream. Soon the acquaintance developed into a friendship. She was glad to make a friend so far from home and was happy at the prospect that when they both would be cured and gone back to their homes, this friendship would develop and then what a pleasure it would be to recall how, when, and in what surroundings it had begun. He felt differently. He thought that they had made his way easy by sending him here. And he felt a peculiar feeling, a sort of cold love, a desire to sit motionless and gaze on for hours on this pale girl, who was entering his life while it was in its evening, oh how soon! He determined that he would take her to wherever he would go, and that they would not part.....ever.

* * * * *

One evening as the clouds were floating away towards the horizon and the light of day was giving place to the darkness of the night, and things were dim and silent, lay Mary on her bed, gazing at the ceiling, while André sat in the chair beside her, facing the window. Mary was

reminiscing. "I was feeling very lonely until you came here. These evenings seemed so intolerably long. Sometimes I had fits of melancholy, and I felt that life was an unbearable ennui. I felt that if I did not recover before the winter, I did not know how I could pass it. You know, winter is the worst time for us . . . But why should I think so now? I will recover, and go back to my home, to my whole family. I miss them very much: my parents—you cannot imagine how dear I am to my parents,—and my little brother John—oh, he is such a perfect darling, you should have seen him,—and my cousin Henry whose thought makes me laugh,—you can guess why,—and my innumerable uncles and aunts. I miss them all very much. I want to go back to that life soon."

She stopped. André had been listening intently. After a pause he said, somewhat dryly, "Yes, go on. I am feeling interested."

"I have finished. I really cannot say all I want to say. I shall be so happy."

"How long?"

She was visibly startled at his question. "How long! As long as I live."

"And then?"

"And then I shall die. Perhaps it is a piece of news to you?"

André stood up and looked out at the green hills. "Perhaps it will mean a very great difference to the world, to the ages to come, to the history of the universe, that you died after some years and not now?"

"What do you mean? I expect you wish me to die now."

"Exactly," he said, sharply turning towards Mary, "Look, Mary, this life is not worth living; this world is not worth living in; they will not make any thinking person like to live . . . What is this life? You strike at invulnerable nothings for a while, and then fade away into that limitless void which is the end of all individual life. Here in this life we make such desperate efforts for such small ends, as if everything in this world depended on our succeeding or failing. We are happy if we gain the point, but keenly bitter if unsuccessful. Tomorrow we die, and everything goes on as if nothing had happened, as if we had not been. The end of success and failure, of happiness and unhappiness, is the same."

"But—"

“ How many days after your death do you expect to be remembered ?
... And even if you are remembered for a time, while you are no more, you are—WHERE ? ”

“ But—”

“ Think, think of the time, Mary, when your hair will begin to turn grey. Daily you will find some friend of yours leaving you—for ever. At each death you will turn the account over in your mind and be full of regrets at what you did or did not do towards the deceased; but all will be irrevocable . . . You may be the life of the party now, but a time will come when people will avoid your company. You will have to pay servants to attend on you, half-hearted as it will be. You will number your days . . . And Henry will be an imbecile old man. One by one all his faculties will give way; possibly the light will go out of his eyes, he will be dear, his limbs will tremble, but he will linger—that you may have the pleasure of the sight !

“ All that is positive and certain will be behind you, and before you a dark uncertainty, a gnawing uneasiness. The derisive silence of eternity will mock your poor heart, will play havoc with it. Avoid that state, Mary, that distress, that agony—”

“ Please, please, André, don’t.”

“ I have done. You can make your choice.”

After this there was a long silence, in the semi-darkness; only the hectic, excited breathing of sick Mary could be heard. The conversation had been too much of a strain for her. She tired, her mind was agitated, the agitation complicated. Then, gradually, a delicious emptying of the mind came on, and she fell asleep, her breathing the breathing of an infant. André, who sat motionless, now slowly got up, came near Mary, bent down, and gently kissed her on the forehead, yes, kissed her with his own cold mouth, whilst she slept.

* * * * *

Another evening, some weeks later, rain—the tears of the skies—had fallen. Everything in Nature, except those protected by man’s constructions, had been washed and cleaned. The green trees were greener; not a speck of dust was on them. The atmosphere was clear, and in the afternoon one could see the country for miles and miles around,—thickly wooded hills looking so fresh. The earth and the verdure were smelling their peculiar smells. As the sun was setting its beams were

reflected on the films of water on the leaves. The water trickled down from the tips of the leaves drop by drop. The western horizon was golden but on the other side, behind, murky clouds were gathering and darkness was gradually deepening.

Mary and André were as usual together. She was standing by the window, and André was sitting in the chair facing the window. Both seemed to be in deep thought and there was perfect silence in the room. Suddenly a gust of wind blew and a shower of rain came on. André got up and shut the window. Soon there were streaks of water running down the glass panes.

The silence was, at length, broken by Mary, as if speaking to herself. "And in my past life I could sing, too." Then slightly brightening up she began to sing a well-known poem, now so truly and sadly applicable to herself:

"There is a wail in the wind to-night,
A dirge in the plashing rain,
That brings old yearnings round my heart,
Old dreams into my brain,
As I gaze into the wintry dark
Through the blurred and blackened pane:
Far memories of golden hours
That will not come again,—
Alas!
That never will come again."

As she finished, she was overcome by emotion, uttered one more "alas" as if in continuation of the song; dropped her head on her arm on the sill, and André heard her sobbing faintly. After a while he rose.

"Out of that despair let us build a grand hope, Mary. After this nightmare of life we will awake into a new world of beauty, and Love, and Freedom,—the world of twilight elfins. We two shall be there in limitless time and space. We will permeate the whole universe." And as he said this an unearthly light shone in his eyes.

He sat down, but Mary remained standing motionless, her face covered. Then suddenly André started, came up to Mary, and said emphatically, "I love you, Mary. I love you with all my soul. But it is not your kisses or your embraces I want. The velvet of your lips will

not last. I only desire that you will not leave me alone in the life to come; you will not make that world dark and dreary to me by your absence. Tell me, Mary, you will not leave me to wander companionless by those flowers and streams; you will be by my side?"

Turning towards him and wiping her tears, she answered, "Yes". "You don't want to live here, brave Mary?"

"No".

Thenceforth there was no improvement in her condition: instead, there was deterioration. The daily temperature rose higher; she had no appetite; the tint of pink on her cheek disappeared and went back to where it had come from. The flower had caught the blight. The doctors were much puzzled by her case; she just did not improve. They were at a loss to account for this sudden change for the worse. Little did they realise that where there is no will to live the most efficacious remedies are of no avail.

And then Winter came. Mary's condition worsened, and the end seemed near. One evening she expired, so quietly that she seemed to be asleep. It was a dream of youth that melted away after so brief a life.

A few hours before she breathed her last, André came to her bedside and whispered into her ear:

"You are going before me. You will wait for me there. Under the intense moonlight, by the full river, I will meet you. Good-bye, Mary. Bide tryst, Mary."

THE NEW BIOGRAPHY

By MR. P. C. GUPTA, M.A.

"The history of Mankind is the history of its great men."—*Carlyle*.

The source of biography is the same as that of history, drama or fiction—interest in one's fellowmen, love of gossip and insatiable curiosity about life. A certain sense of form and urge for beauty transmute this curiosity into art. Thus the human soul has expressed its quest and longings through artistic or literary adventures.

The history of English biography may be traced back to the ancient Runic inscriptions which celebrated the lives of heroes and recorded the exploits of deceased and legendary warriors. We might trace it to the old sagas and epics until it finds literary fruit in Bede's "Ecclesiastical History" or Geoffrey of Monmouth. Then we reach the long procession of great English biographers—Walton, Johnson, Boswell, Southey, Lockhart, Carlyle, Froude, Macaulay. With them the writing of biography becomes a conscious and deliberate art.

Biography is in a sense one of the most difficult of literary forms. In poetry or drama the imagination of the artist is untrammelled. He is free to take high, soaring flights of song. The biographer has to work with certain given materials. He is not free to indulge in dreams of beauty. His task may be compared to that of the sculptor or portrait-painter. The model is there before him. He aims to produce a faithful likeness. At the same time he throws over the whole a certain magic glamour. The artist is interpreting his subject. Sometimes the portrait has no external resemblance with its subject. Lady Haig indignantly repudiated Epstein's rendering of her husband as a likeness of Earl Haig. The artist was interpreting his subject from the inside. In a historical novel or play the literary artist has to face similar difficulties. It is almost impossible to render the rigid material of life plastic for purposes of art. Only the finest imagination achieves it.

Speaking at Oxford on the "Creation of Character in Literature" Galsworthy said:

"The task of a biographer is the clothing of a skeleton already in the cupboard; and speaking from the creative point of view, the pre-existence of the skeleton is more than half the battle. The liberties which can be taken with enduring and unmalleable bones, without incurring a sort of Egyptian curse, are inconsiderable. A biographer may crook a leg, leave out some teeth, or slightly curve the spine, and still escape from Nemesis; the main set and structure he must preserve or die violently.....Having then fetched his skeleton from its cupboard, dusted it, and put it into a north light, the biographer will proceed to drape, first muscle, tissue and skin, and then such garments as may appeal to his æstheticism or sense of decency, not always the same thing. From innumerable documents or the absence of them, he will draw his clothing conclusions....."

The aim of the biographer is twofold. He must be truthful and interesting. Without the first quality his work is defeated in its primary aim. Without the second he would fail to hold his audience.

Autobiography, an offshoot of biography, entails even greater difficulties on the part of the artist. "It is a hard and nice subject for a man to write of himself; it grates his own heart to say anything of disparagement, and the reader's ears to hear anything of praise from him," says Cowley. There have been some fine autobiographies in the past—Benvenuto Cellini's, Rousseau's, Gibbon's—and in modern times those of Edmund Gosse or Gandhi or Lady Asquith.

The great biographer has triumphed over all difficulties. With the march of time, art and literature tend to deal more and more with the inner life—the drama going on in the world of the spirit and the subconscious. The external world of deed and action is an infinitesimal fragment of a man's real being. With the progress of psycho-analysis and the scientific spirit the art of the biographer has become a most fascinating pursuit. He can analyse complexes and probe into motives without giving offence. The old maxim "*De mortuis nil nisi bonum*" lies forgotten among the musty volumes of the past.

Plutarch, the prince of biographers, said some centuries ago: "Nor is it always in the most distinct achievements that man's virtues or vices may be best discerned; but very often an action of small note, a short saying or a jest shall distinguish a person's real character more than the greatest sieges or the most important battles."

With modern times the technique of writing biography has been perfected. The old biographers got their facts together, marshalled them and narrated them with some literary gusto. Their task was done. With the modern biographer facts are so much paint and paste-board-necessary but not everything. From the paint and the daubs gradually emerges the image which had been in the mind of the artist all the time. Ludwig "Begins with the concept of a character and searches into the archives for what remains at bottom the corroboration of an intuition."

The twentieth century has manifested various signs of a great revival of interest in biography. Lytton Strachey, André Maurois, and Ludwig form a triumvirate unsurpassed in the long career of the biography as a literary genre. For sheer brilliance they remind one of the

great Renaissance artists—Vinci, Raphael, Michael Angelo—producing portraits at-once colourful, striking, massive. The interest in biography has invaded the sphere of the drama and the novel. John Drinkwater has reverted to the Marlowesque one-man play in his "Abraham Lincoln." Even Shaw has written a biographical play "Saint Joan" singularly free from Shavian irreverence for saints and heroes. Andre' Maurois' "Ariel" is a vivid and picturesque life of Shelley allied in form to fiction.

It seems impossible to agree with Ward who sums up the achievement of the modern biography in a pessimistic vein:

"Nothing else in post-War literature has been so unfortunate as that biography should have oscillated persistently between dullness and vulgar smartness, after Lytton Strachey had shown how it could be illumined by a writer who brought to biography the gifts of irony, wit, taste and intelligence."

The modern age perhaps does not worship heroes. Its attention is focussed on the man in the street—his problems, trials, anxieties. Perhaps like the eighteenth century we believe that "the proper study of mankind is man."

With "Prophets, Priests and Kings" in 1908 and "Pillars of Society" in 1913 A. G. Gardiner foreshadowed a new manner in biography. These little snippets and sketches about eminent Englishmen were written with a peculiar grace and richness. Their aim is to delight rather than instruct. The old Victorian approach with prayers and fasting, was discarded. Here one found Mr. Lloyd George cheek by jowl with Jack Hobbs and Charlie Chaplin.

Lytton Strachey revolutionized the art of biography. In 1918 he published "Eminent Victorians." Six reprints were called for in seven months and the book became the talk of England and America. The preface to "Eminent Victorians" is the manifesto of the new biography. Lytton Strachey regards too much scholarship as a disadvantage. Ruthless rejection of unnecessary and familiar material was his method. In "Eminent Victorians" he smashed many popular idols. Gordon used to drink brandy; Manning was worldly-minded; Dr. Arnold was muddle-headed; Florence Nightingale was not "the lady of the lamp" enshrined in popular imagination, but a woman of indomitable will and purpose.

She transformed the Army Medical Service into a wonderful machine, where formerly it had been inefficient, slow and unreliable. The delicate, sentimental fairy-being of the popular legends appears in these pages as an angel of wrath.

Some of the great Victorians have come to life again in this book—as the Renaissance men come to life in the portraits of Florentine or Venetian artists—like the Doge in that lovely work by Giovanni Bellini or the Tudors in the portraits of Holbein. They are no longer abstractions of mere goodness or virtue. The Victorian pageant passes once again before our eyes in its splendour and glory.

In “Queen Victoria,” 1921, Lytton Strachey achieved one of the great books of the age. The same mocking irony, rebellious temper, romantic imagination, classic sense of style—which were the features of “Eminent Victorians”—appear here, only transformed to a larger canvas. Somehow the book is not so much the life of Queen Victoria as that of Lord Melbourne, Stockmar or the Prince Consort. One might call it the second volume of “Eminent Victorians.” Full-length portraits of these great Victorians done with the same gusto, love for colour and detail and the same irreverence for mere virtue.

The finest of all is Lord Melbourne—hoary, old sinner and epicurean—who in the presence of the young queen turns strangely soft and mellow like ripening fruit in the sun.

Queen Victoria is seen clearly as a woman—with all her womanly faults—petulance, obstinacy, desire to have her own way. One still admires her, but the admiration is tempered and rational.

The figures of the mysterious and shadowy Stockmar and his painstaking disciple Albert haunt these pages like ghosts. They are presented with fidelity and abundance of detail; but they only win respect, no enthusiasm. They brought to England with them German qualities—calm, patience, industry, a consuming conscience—fine qualities but they left England cold.

Innumerable minor figures—silhouettes—teem through these pages, drawn in sharply-defined outlines, at once indelibly stamped on the mind.

One of the greatest pleasures derived from Lytton Strachey, however, is the fine jewel-like prose. It has a strange, classic grace and a peculiar rich flavour like that of old wine. His sentences seem carefully moulded like old Greek statues under the loving hands of the artist.

Speaking of Sir Thomas Browne to whom somehow he seems allied in spirit, he says:

“ One would read him floating down the Euphrates, or past the shores of Arabia; and it would be pleasant to open the *Vulgar Errors* in Constantinople, or to get a chapter of the *Christian Morals* between the paws of a Sphinx. In England the most fitting background for his strange ornament must surely be some habitation consecrated to learning some University which still smells of antiquity and has learnt the habit of repose. The present writer, at any rate, can bear witness to the splendid echoes of Browne’s syllables amid learned and ancient walls; for he has known, he believes, few happier moments than those in which he has rolled the periods of the Hydriotaphia out to the darkness and the nightingales through the studious cloisters of Trinity.”

“Books and Characters” and “Portraits in Miniature” fill up some of the crevices and crannies between these works.

Lytton Strachey made the biography a force in modern literature. He explored and utilized the existing material on stale, worn-out themes. He breathed new life into lifeless material. Lytton Strachey is one of the many modern writers who died comparatively young, perhaps their purpose yet unfulfilled.

Emil Ludwig is the most prolific of modern biographers. With his “Napoleon” (published in Berlin, 1925) he attained wide fame. He had already brought out “Bismarck” in 1911. The appearance in quick succession of—Wilhelm, the last of the Kaisers; Goethe; the Son of Man; Three Titans; Talks with Mussolini; Genius and Character; Leaders of Europe—has given rise to a legend that Herr Ludwig maintains a workshop of retainers and followers who assemble all the facts for him and then the master merely touches them up.

The modern biographer is continually in quest of new material. Since the time of Plutarch the heroes of antiquity and modernity have been used. Ludwig’s last venture is a river-biography—the Story of the Nile—since the oldest times to now. He retells the immortal stories of Queen Sheba, Gordon’s mission to Khartoum and Kitchener. He takes us through the barren deserts, over rugged mountains to the source

of the Nile. He discourses of the elephant, the crocodile, the gazelle, the camel and the tribes of man that infest its banks. So the modern biographer is seeking for ever newer and fresher material to satisfy his urge.

Bismarck and Goethe remind one of the nineteenth century. They are just struggling to be free of the deadweight of the past. There is immense learning and scholarship in them, but there is a certain sense of oppression. Character is just beginning to emerge from the learned details which sometimes threaten to overflow and smother the subject.

In Napoleon and William II there is complete mastery over the subject. The details are subordinated to the general pattern and sometimes scattered about with generous abandon. The learning has been chewed, digested and more or less cast aside.

Napoleon is an impressionistic and pictorial study. One feels Ludwig might have been a great painter, dramatist or stage-manager, such is his grasp of character, situation and sense of the dramatic. Some of the scenes in his books are most carefully set; the scene of Napoleon's birth for instance; the war-tents with pictures of old heroes painted on them and the drums and the guns in the distance. A worthy stage for a great soldier's life-drama.

From these outlines gradually emerges, like the butterfly from the chrysalis, Napoleon's colourful portrait. It reminds one of Hardy's "Dynasts" in epic breadth and dignity. Clever, brilliant, sensual, ambitious, unscrupulous, dazzling—such is the general impression of Napoleon's personality in these pages—perilously like a woman in his moods and wilfulness and love of display. So the breathless narrative moves on from page to page revealing the spirit and soul of this surprising and fascinating man.

"Wilhelm Kaiser" is slightly better, because Ludwig is not so obsessed by the greatness of his subject. Weak, neurotic and noisy—the Kaiser—was completely ignored by his war-lords, once the war-machine had been set in motion. A pitiful figure who swelled to vast proportions in his own imagination and the newspaper readers'—he can no more be compared to Napoleon than one of his staff-sergeants!

It seems to be Herr Ludwig's ambition to include within his range most of the great men of all times. So Jesus, Leonardo da Vinci, Shakespeare, Voltaire, Napoleon, Bismarck, Goethe, Mussolini, Stalin, Lloyd

George and a host of others pass before our eyes as a gorgeous pageant through the ages.

Ludwig's method is to find support from the archives for his intuition. He modestly asserts that he is merely going back to the methods and technique of the oldest European biographer, Plutarch, who says: "I record, not history, but human destiny." In Ludwig the historian and the novelist meet. He possesses a rich, historical imagination which makes the drama of the past enact itself in flesh and blood before our eyes. His passage describing the meeting of Napoleon and the Sphinx in the deserts of Egypt might have been written by a novelist:

"Bonaparte rides slowly across the desert sands to look upon the face of the Sphinx. The eyes of stone and eyes of steel meet. Like the Sphinx he knows how to be silent, but we can guess his thoughts.

"Alexander stood here. Cæsar stood here. They lived two thousand years after this image was sculptured, as I live two thousand years after them. Innumerable empires, consecrated to the Sun, extended around the Nile. Millions obeyed the will of one. What the ruler dreamed, was fashioned by his slaves with their myriad hands. Everything was possible to him. The king was the son of the gods. All obeyed him as the descendant of the original conqueror. Because that first conqueror named himself king, and son of the gods, all believed him. Here, in the East, it is possible to say to human beings "I am your god," and all believe. Europe is mole-hill."

Of Ludwig it might be truly said that he has made biography interesting as a fairy-tale.

Andre' Maurois has borne a large share in making modern biography popular. His gifts and contribution are characteristically French. Lytton Strachey in his scholarship, brilliance and cynicism had an old-world flavour. One could imagine him as a rather naughty Victorian Englishman; his spirit was so thoroughly steeped in Victorian lore. Reading him seemed like sipping some rare, old wine. Ludwig is conscientious and painstaking. He succeeds, because Germans always succeed. Besides, somewhere under all that ponderous learning, he hides

a human imagination and a kindly heart. That is why he has not yet written any book on Hitler and was so deeply stirred by the publication of the new Soviet Constitution. André Maurois' touch is light, joyous, restful and his wit in its flashes rapier-like. Only a Frenchman could carry his learning so lightly.

With "Ariel" Maurois begins a new tradition in the art of biography. He forgets all the oppressive data about Shelley's life—dates, names, places—all that makes up the joy of a historian's life and the bane of a student's. It is a simple, charming portrait of Shelley—light, graceful, Ariel-like.

Divested of his luminous wings and the awe his poetry may inspire in a layman, Shelley appears pre-eminently as a simple, loveable human being.

The life of Byron is almost in the old tradition—a thoroughly sound book. It is heavenly documented and supported by all reliable data. There is no danger of anyone going astray. The character of Byron is rendered with insight and imagination and some glimpses of contemporary life are worthy of Lytton Strachey himself.

"King Edward VII and His Times" is a bit sketchy, but more in harmony with M. Maurois' own spirit. The lovable figure of the king, the pleasure-seeking, light-hearted court-circles, the troubles of the parliament, the spirit of joy abroad—all properly captured and lightly set down.

M. Maurois has written so much about English subjects and is so thoroughly steeped in English lore that he has ended by giving us an imaginary and idyllic portrait of a characteristically crusty Englishman "Colonel Bramble"—done with deep affection, sympathy and the most delicate shade of irony.

The biography as a literary mode has come to stay. Every year new biographies are pouring from the press. Last year Edith Sitwell produced another life of Queen Victoria in a vein similar to that of Lytton Strachey, only further extended and enlarged. John Buchan brought out "The King's Grace" on the occasion of the Silver Jubilee. There is that fine, graceful study of Akbar by Lawrence Binyon who knows so much about Mughal life and art.

Of these the most powerful is Philip Guedella's "Palmerston," a detailed, picturesque and ironical study of a great period and one of its

outstanding figures. The spirit of Lytton Strachey is abroad, touching, transforming things to gold.

Innumerable autobiographies too are being published every day—Lloyd George, Churchill, Margot Asquith, Wells, Chesterton, Nehru, and a host of others. In this east and west are alike.

There is a fierce desire among these people to discover and set down the truth. Part of this may be due to the legacy of shattered illusions left by the War. The old Victorian prudery has completely disappeared. The fuss made by the Victorians over Froude's *Life of Carlyle* seems childish by contrast.

The methods of the new biographers are impressionistic and psychological. Facts are a great help, but they do not explain completely the elusive, human personality. Froude and others have revealed vast, unknown regions of the sub-conscious which baffle all facts.

Their aim is to be pictorial. With imaginations flushed they conceive wonderful figures and images and burning set them down.

Thus equipped the modern biography sets out full career into the future and who can doubt that the future is full of hope?

THE UNIVERSITY: A RETROSPECT AND A PROSPECT

By THE HON'BLE MRS. VIJAYA LAKSHMI PANDIT,

Minister for Local Self-Government, U.P.

The University of Allahabad is celebrating its fiftieth birthday. For half a century it has moulded and shaped the destinies of thousands of youth of this province. How will it continue its work in the face of the forces that shake the world?

We are passing today through the troubled waters of transition. Everywhere there is change and a desire for change; a dissatisfaction with things as they exist. And in no group is this desire more strong than in the student community. After many years of a too placid existence they are feeling the call of those forces which conspire to upset all the standards which they have been taught to regard as right.

In the stormy skies of Europe we see what may be the fate of the wide world a short time hence and the picture is not one which even the most optimistic of us can view with calmness.

War, when it is waged for purposes of material gain, is bad enough, but when war is waged against ideas it is a catastrophe. It not only devastates countries and ruins homes, it sows the germs of that hate which uproots the world. It is this war which threatens us today. That "no nation would have another more rich and potent than itself" is bad enough, but it is far worse when no nation will tolerate the ideas of any but itself. With the war-cry of 'civilization in danger' the nations arm in haste, prepared to destroy the world to save civilization. But for whom is it to be saved? What are we in India to do in the midst of this tragic turmoil that engulfs us?

By pointing out the right path at this time the Universities can justify their existence. It is not enough that the University which celebrates its jubilee today should have launched into the world a handful of men who, in the business of life, have proved themselves a success. In this hour of the world's peril success cannot be judged in material terms—only that man or woman can be called successful who has helped towards the solving of those problems which shake our foundations. At this stage of our history we need knight errants in the shining armour of undimmed faith. We want men and women who see the vision beautiful and have the courage to translate it into action so that the dream of the night may become the reality of the morning. Let the University of Allahabad create in the men and women who pass through its portals this faith and this desire so that we may be justified in wishing it many happy birthdays full of service to the youth of the United Provinces.

THE ALLAHABAD UNIVERSITY

By MR. C. Y. CHINTAMANI

My friend Prof. Amaranatha Jha has honoured me with a pressing invitation to contribute to this special Jubilee Number. For a reason which need no longer be stated I did not see my way to accept it, but the reason having ceased to be I gladly comply.

My acquaintance with Allahabad University dates back to 1903—my first year in this city and these provinces, when the present learned and distinguished Prof. Jha was a boy of six. I witnessed the Convocation of that year held in Vizianagaram Hall with the Chancellor, Sir James La Touche in the chair. Sir George Knox was the Vice-Chancellor. Not until a little agitation by me succeeded and meetings of the Senate were thrown open to the press and the public could I witness a meeting of that august body. When I could and did I came back disappointed. Then and for fifteen years thereafter, Sir Sunder Lal was the central figure in the University, and at that time another active and respected veteran was Mahamahopadhyaya Pandit Aditya Ram Bhattacharya. I got into hot water in 1904 by a criticism more outspoken than discreet of the first nominations made to the Senate under Lord Curzon's Act of that year. The Lieutenant Governor-Chancellor and I were complete strangers to each other, but he was all wrath against me and he was only appeased partially by Sir Sunder Lal telling him (1) that I came from a province used to free criticism and (2) I was under 25 years of age. My impression of the Senate for many years was that it was a more or less reactionary body. I was elected to the Senate by the Senate itself in 1920, but before I could attend a single meeting as a Fellow I was called to an office the incumbent of which, in my opinion, should not take part in the proceedings of the University. And very soon thereafter the Senate itself ceased to be by decisions of the Government and the Legislature to which I was a party much to the disgust of the learned editor of this magazine. I hope he has changed his opinion, as his revered father and my honoured friend publicly avowed that he had done as the result of both experience and observation.

From my very first year at Allahabad I was in close and almost constant touch with the students. There was not a year during which

I had not to address more meetings of students than one in almost every college including Muir Central. I was regarded kindly by the students of that time and not relegated to the shelf as a back number as I have reason to think I am by their successors of today.

We call our fathers fools, so wise we grow,
No doubt our wiser sons will call us so.

It has been an almost lifelong weakness with me to consider discipline a supreme necessity and insist that students must be students first and everything else afterwards: a position that surely cannot be tolerated in these days of curious and unprecedented (and still more unwise) notions and nostrums. But if I cannot hope to be popular—nor do I aspire to be at the cost of principle and conviction—I am yet satisfied that at best a large body of the students of today is altogether on the wrong track and that not a few of them may have to rue in after-years the consequences of their precocious and unconsidered patriotism. I could wish that they at least considered what today's applauded leaders did when they were students and if they would have attained their high position if they had practised what they now preached; also, whether they ever gave the same advice to their own sons when the latter were at school and college. As an humble yet ardent well-wisher of the students—it is immaterial whether they recognise me to be one—I can but deplore the facts and tendencies of the present time, and prayerfully wish that wisdom may dawn upon them as well as their advisers before irretrievable harm will have been done.

Unlike in the past, Indians themselves dominate the University today. This is as it should be. But it should not be forgotten that we are still on our trial. I will not say more on the unpopular need of discipline except to express a wish that a heavy and special responsibility rests on the authorities of universities, colleges and schools to inculcate as well as to enforce it. The next most important point that calls for emphasis is efficiency. Whatever one might think of the prescribed courses, I fear it has to be stated with regret that the standard actually attained by the large majority of the *alumni* of the University is less high than it should be, judged by any test of reason and looked at from any point of view. This is not right. Uncommonly bright graduates there of course are as there were and will be. In utter-

ing my criticism I do not overlook their existence, nor do I judge by the ne'er-do-wells in the ranks. I have in mind the large intermediate body, and it is my considered opinion that their level is lower than it should be. A university has to satisfy the qualitative, not the quantitative test. As it is the senior so do I trust that Allahabad is the premier university of the United Provinces : in my own mind I have no doubt it is. But the motto should be *Excelsior*. As Lord Rosebery said, contentment spells decay. The moment a man or an institution is satisfied that he or it is all that he or it should be stagnation sets in followed by progressive deterioration. Emphatically I am not among the critics who affect the belief that high education has been a failure in India. I do not want any check of its further advance. I do not think that too many graduates have been produced by our universities, or that there are too many of these, or that they are uselessly consuming too much money. While I yield to no man or woman in the anxiety to see elementary education " in widest commonalty spread " and the facilities for technical education extended, I have always been convinced by the forcible and indeed unanswerable argument of the great leader Sir Pherozeshah Mehta—the greatest I have known—that even when every man, woman and child may be literate, the progress of the country will wholly depend upon the number and quality of its highly educated sons and daughters. The future of university education in India is, I am constrained to think, not free from peril. While the British section of the government have long since ceased to be enthusiastic over it (due to narrow political considerations)—whether the motive and whatever the reasoning, the speeches of our present Director of Public Instruction including the latest confirm my statement of fact—university education is now confronted by two new classes of adverse critics—those who see in it the cause of middle-class unemployment and others who want ' self-supporting ' (!) education. What the Congress Minister of Education in the United Provinces thinks he has not obliged an inquisitive public by letting it know. Although a member of the bar and a politician, he evidently believes that silence is golden while speech is of the depreciated white metal. However this may be, whatever he or his colleagues may be thinking, it is the duty of all educated Indians who continue to believe in the efficacy, the utility, the necessity of an increasingly wide diffusion of liberal education to be vigilant in

watching and active in thwarting any attempt at retarding the progress of our universities. It is nonsense to say that too much money is being spent upon them. The truth is that not enough is being spent and therefore aspiring youngmen find themselves still under the necessity of completing their education in foreign countries. The great American Ambassador Mr. Choate observed that education was the greatest industry of the United States. Public opinion cannot impress upon the Government as well as private philanthropists that a wise and liberal outlay upon the highest education is the truest national economy.

I will conclude these observations with the heartiest felicitations to the Vice-Chancellor and members of Allahabad University on the completion by it of half a century of useful, honourable and distinguished work, of which it has just reason to be proud. Its first Chancellor was the great scholar Sir Alfred Lyall and among his successors was so good and great a friend of education as Sir Harcourt Butler. Among its Vice-Chancellors was a citizen the like of whom there was not and is not another—Sir Sunder Lal. Among its alumni are the revered patriot Pandit Madan Mohan Malaviya, the first man of Hindustan, and the great lawyer and statesman, Sir Tej Bahadur Sapru, quite recently honoured by the foremost of the world's universities. At this very day the teaching staff of the University includes scientists of European repute (one of them an F.R.S.) and scholars of whom any learned society may be legitimately proud. The best of its students have always enhanced the prestige of the University. May our Goddess of Learning—Saraswati—always shower upon our विश्वविद्यालय Her choicest blessings, and may the votaries of learning who have chosen it as their *alma mater* always pray—

वाणी सर्व जगद्धात्री, सर्व विद्या प्रदायिनी ।

जिह्वाग्रे वस मे नित्यं, सुस्थिरा कमलासने ॥

UNIVERSITY ASSOCIATIONS

THE ATHLETIC ASSOCIATION

The Allahabad University Athletic Association began its life in 1922 when the reorganised University absorbed the Muir Central College and gave its own name to the Athletic Association of that College. The new Association inherited the property of its predecessor, took over its activities and adopted its constitution also, with only slight modifications.

In the days of the Muir College the Principal was the President of the Athletic Association, *ex-officio*, and a Professor of the College, elected by the Athletic Council, was Secretary. The Athletic Council consisted of all the members of the teaching staff and the Captains of the various games which comprised Football, Hockey, Cricket, Tennis and Sports including Cross-Country racing. The Association had an income of about Rs. 3000 derived from the Games fee levied from students and this was supplemented by an additional fee realised from those who played Tennis. The play-grounds and Tennis lawns were maintained by the College except that the Association occasionally contributed towards the cost of renovation when it was necessary to dig up a whole field. The Central wing of the existing Cricket Pavilion had been built in 1912 with funds provided by the Hon'ble Sir Sundar Lal, supplemented by a Government grant.

The transformation of the Muir College Athletic Association into the Allahabad University Athletic Association called for little immediate change. The office of President was filled by a member of the teaching staff, Dr. J. C. Weir, nominated by the Vice-Chancellor who himself became Patron of the Association. An annual grant was made to the Association out of the Games fee collected from students part of which was diverted to other purposes. The amount of the grant, initially Rs. 3000, has increased since to Rs. 5000 a year.

Meanwhile the athletic life of the University has gone on expanding. New play-grounds have been laid out in the compound of the Senate House. Basket Ball and Volley Ball have been started as regular games and a Gymnasium has been inaugurated to provide Wrestling, Physical

exercises and Drill; Rowing and Swimming, Physical exercises in some form has been made compulsory for every under-graduate student at the University under regulation. The President controls all these activities but financial provision is separately made for the Gymnasium group (including Rowing and Swimming) with which the other office-bearers of the Association have no concern. Whole-time paid instructors employed by the University carry on the work of this group.

In other directions progress has been equally marked. The Pavilion has been twice extended by the addition of two wings each consisting of one big room, with necessary closets. A stadium to accommodate about 250 spectators is under construction on a site commanding the Running Track and the Cricket Lawn where the annual sports are also held. The cost of these works has been met partly out of the savings of the Association and partly from grants made by the University and the Government. For watering the play-grounds the masonry well in the compound of the Muir Central College has been fitted with an electric Pump at a cost of Rs. 600 met wholly from the funds of the Association.

The growth in the numbers of the students and the staff made it necessary for the latter to organise themselves separately for purposes of recreation and a University Staff Club was started in 1927. With the secession of teachers the constitution of the Association underwent a change. The former Council which included all teachers who paid the athletic fee gave place to an Executive Committee consisting of the office-bearers of the Association among whom the President, Secretary, Joint-Secretary, Treasurer and the Presidents of various games are teachers nominated by the President and the Captains and Vice-Captains are students.

The direction of the affairs of the Association under this altered constitution devolved largely on the President whose office became one of arduous work and heavy responsibility. Dr. Weir, the first President, resigned in 1926 and on his recommendation Pandit Amaranatha Jha was nominated President by the Vice-Chancellor. He brought his characteristic vigour and enthusiasm to bear on the work of the Association and has left a deep impression on the Association. On his resignation—long held in abeyance at the insistence of the Vice-Chancellor—the present President, Mr. G. D. Karwal, was nominated and assumed office in August 1937.

Mr. Karwal's connection with the Association coincides almost with the period of his service. He became Secretary of the Athletic Association in 1916 shortly after his appointment as Professor of the Muir Central College. His predecessors, Drs. D. R. Bhattacharya and A.P. Sarkar, had held office for 3 and 2 years respectively but his own tenure of it lasted (with a short interruption) till his nomination as President in August last. During the years 1926—29 he gave place to Mr. S. C. Deb, Reader in English, as Secretary and himself acted as President of Sports and Cricket.

It is matter of some concern that the Association has not got a record of athletic achievement comparable to its progress in other ways. The records established are shown below.* Some of our Tennis players have achieved eminence as All-India Champions—the most distinguished being E. V. Bobb and D. N. Kapoor. But our records in sports are

*WORLD, INDIA AND UNIVERSITY RECORDS

Event	World Record	India Record and Name	University Record and Name.
100 Yards	... 9.4 sec.	9.7 sec. (1934) R.A. Vernieux (Bengal)	10 sec. (1919) Ali Kabir
220 Yards	... 20.6 sec.	22.2 sec. (1930) M. Sutton (Bengal)	23 sec. (1919) Ali Kabir
440 Yards	... 46.4 sec.	50.1 sec. (1927) J. S. Hall (Bengal)	53.4 sec. (1934) B. P. Dube
$\frac{1}{2}$ Mile	... 1 m. 49.8 sec.	1 m. 59.2 sec. (1934) G. P. Bhalla (Punjab)	2m. 3 sec. (1933) B. P. Dube
1 Mile	... 4 m. 6.8 sec.	4 m. 31.2 sec. (1932) R. Judge (U. P.)	4 m. 59.5 sec. (1934)
120 Yards Hurdles	14.2 sec.	15.2 sec. (1932) M. Sutton (Bengal)	H. V. Kocher
220 Yards Hurdles	23 sec.	25.8 sec. (1927) Abdul Hamid (Punjab)	16.4 sec. (1921) Ali Kabir
High Jump	... 6 ft. 9 $\frac{1}{2}$ ins.	6 ft. $\frac{1}{2}$ in. (1932) Dilbagh Singh (Punjab)	5ft. 9 ins. (1928) Nawab Husain
Long Jump	... 26 ft. 2 $\frac{1}{2}$ ins.	22 ft. 10 $\frac{1}{2}$ ins. (1934) Niranjana Singh (Punjab)	20ft. 6ins. (1919) Ali Kabir
Hop, Step and Jump	51 ft. 7 ins.	46 ft. 4 ins. (1934) Niranjana Singh (Punjab)	38ft. 4ins. (1933) H. V. Kocher
Pole Vault	... 14 ft. 4 $\frac{3}{4}$ ins.	11 ft. 5 $\frac{1}{2}$ ins. (1934) Abdul Shafi (Punjab)	
Shot Put	... 57 ft. 1 in.	40 ft. 4 $\frac{1}{2}$ ins. (1933) D. Phillips (N. W. R.)	35ft. (1915)
Hammer Throw	... 189 ft. 6 $\frac{1}{2}$ ins.	128 ft. 1 $\frac{1}{2}$ ins. (1933) A. Drummond (Punjab)	W. H. Gill
Discus Throw	... 171 ft. 11 $\frac{1}{2}$ ins.	116 ft. 3 $\frac{3}{4}$ ins. (1934) E. N. Whiter (Punjab)	
Javelin Throw	... 242 ft. 10 $\frac{1}{2}$ ins.	183 ft. 2 $\frac{3}{4}$ ins. (1933) E. N. Whiter (Railway)	

considerably below the Indian records and quite a large proportion of them have come down from the days of the Muir College.

This must be attributed largely to the shortening of the University course by the separation of Intermediate classes. The undergraduate has now only two years of residence at the University and can ill afford to spare much time for games. New forms of amusement also claim his attention and that healthy rivalry among our Hostels which alone can raise the level of games is not gaining strength.

THE ALLAHABAD UNIVERSITY UNION

Like most democratic institutions the Allahabad University Union has had a chequered career from its very inception. Formally inaugurated by the then Vice-Chancellor, Sir Claude de la Fosse, on August 18, 1923, the Union was one of those organs which were the natural outcome of the re-orientation of the University of Allahabad as a residential and teaching body. University life would have remained incomplete without such a democratic society and so the Union was started with the objects of (a) affording to its members all the usual privileges and amenities of a University Club, (b) holding debates and arranging lectures.

The membership of the Union is compulsory for all the students of the University of Allahabad and is open to such members of the staff as desire to enter it on payment of subscriptions. There are, however, provisions for honorary members, life-members and associates. The subscription which was fixed at Rs. 5 per annum has been shared by other associations of the University too, *e.g.*, the Athletic Association since 1925.

The constitution of the Union, which was originally framed in 1923, has, since then, undergone various changes. The early records of the Union show how the constitution was modelled and remodelled repeatedly in order to meet the difficulties that arose with experience, until at last it approximated its present form in the year 1927-'28. It was in the year 1926-'27 that the Union was suspended for two consecutive terms owing to a constitutional crisis. Since then no such grave

constitutional difficulty has appeared, although the tinkering of the constitution has continued. Even now there is a move a-foot to change the method of election of the office-bearers. The office-bearers of the Union are as follows : (i) The President, (ii) The Vice-President, (iii) The Secretary, (iv) The Treasurer, (v) The Librarian. Of these, the latter two are from amongst the members of the staff ; the rest are directly elected by the members of the Union, while the members of the Working Committee are indirectly elected through the various hostels and delegacy wards. There is a Judicial Committee to decide election-petitions and constitutional issues, and there is a Board of Trustees to look after the capital of the Union and the income thereof. The elections of the office-bearers of the Union are held twice a year ; formerly there used to be three terms in an academic year, but in 1933 an amendment fixing the number of terms at two was adopted.

At present the Union has no separate building exclusively its own. Till 1927, the Union had only one room at its disposal both for the Reading-room and Committee meetings. In that year the office and Reading-room were transferred to the old Oriental Department buildings and since then the two rooms thereof have been used by the Union. It has always been felt that the Union should have a hall of its own for the purposes of debates and lectures and although a reserve fund especially to raise a building is being maintained, there are no very near possibilities of the fulfilment of this want.

The University-grant to the Union has shown no tendency towards increment. In 1924, the Union got a grant of Rs. 2400 ; in 1925 it fell to Rs. 1400 ; the encouraging grant of Rs. 1048 in 1928 was followed by a sudden fall to Rs. 1200 in 1932-'33. There haven't been any more ups and downs since then and the amount has remained static. The year 1935-'36 saw a huge deficit in the Union finances but it was made up by the succeeding office-bearers. The Union has occasionally been helped by subscriptions from old members and distinguished patrons.

The chief activity of the Union consists in the organization of debates and lectures. Training in parliamentary democracy and oratory is the main object of the Union. The debates are generally of two kinds :—the prize-debates and the ordinary practice-debates. One of the most important items of the Union's yearly programme is the

All-India Convocation Debate which was started in the year 1916. The contest is open to all the Universities in India and the Convocation Cup is awarded to the best-represented institution. A perusal of previous records shows that this Debate has drawn representatives every year from such distant places as Calcutta, Bombay, Lahore and Nagpur, and thus has not been an All-India debate merely in name. Of the internal Prize-debates, the Sir Tej Bahadur Sapru Inter-Hostel Debating Contest is probably the oldest. There is every year an Extempore Debating Contest for the Gokhale Medal given to the best individual speaker. The Moti Lal Nehru Debating Contest, the prizes for which are very kindly awarded by Mr. S. P. Sinha of Allahabad, was started in 1931. It is open only to undergraduates. Two fresh Debating Contests have been started in 1937. We had the first Hindustani Debating Contest in the history of the Union on February 5, 1937, and it is hoped that this debate will be a regular feature of the Union, as a trophy has been procured for the purpose. Mahamahopadhyaya Dr. Ganganatha Jha has very kindly donated a trophy named after the late Sir John Edge, the first Vice-Chancellor of the Allahabad University, to be awarded to the best speaker of every term, as decided on the basis of the results of a series of debates to be held during the term. One contest of this kind has already taken place.

Besides these, a number of ordinary debates are also held during every term. To some of these, distinguished speakers from outside are also invited. In all such debates not only a suitable training is imparted to the budding speakers of the University but opportunities are also afforded to 'Varsity students to think vigorously over problems of contemporary and vital interests. The Union has also been sending its representatives to debating contests organized by other Universities and it is gratifying to record that they have many a time won laurels for the *alma mater*. The Union can proudly claim to have sent out into the public life, some really brilliant speakers.

Every year we have been having some or other distinguished men and women to address the members of the Union on topics of interest and instruction. Among those who have spoken from the Union platform, there have been such distinguished personages as Dr. Annie Besant, Mahatma Gandhi, Dr. Tagore, Mrs. Sarojini Naidu, Mr. Bipin Chandra Pal, Sir Tej Bahadur Sapru, Sir T. Vijayaraghavachariar,

Pt. Jawaharlal Nehru and Mr. M. A. Jinnah. In 1929 the Union presented an address and a purse to Mahatma Gandhi; in 1934-'35, addresses were presented to Dr. Rabindranath Tagore and B. Rajendra Prasad. In 1936, the Union presented an address to Pandit Jawaharlal Nehru, who was also elected its honorary member, the other honorary member being Dr. Ganganatha Jha and Sir T. Vijayaraghavachariar. The same year Sir T. B. Sapru was elected an associate of the Union.

The Union has also been celebrating certain important occasions, *e.g.*, the International Cooperators' Day and the birthdays of great men.

Another important feature of the Union is the Reading Room which has become an extremely useful and almost indispensable institution for the students. They can well utilize their leisure during vacant periods in the Reading Room. It was born with the Union in 1923 and has been usefully serving Union members since then. About thirty papers are subscribed to by the Union. There is also a small collection of books on debating and speech-making.

In 1936-'37, an Essay Competition and a Short Story Competition (for which medals were awarded by the Nawab of Bhopal and Mr. Hyderi respectively) were also started by the Union.

Thus, whatever may be said regarding the merits or demerits of certain particular sessions of the Union, there can be no two opinions as to the indispensability of the Union as a healthy organ of the University-body. During the brief span of fourteen years of its life, it has ingratiated itself into the spirit and traditions of the University, it has built up its own traditions, and if it has faltered and blundered, it has also gained in strength and utility. We have every reason to hope that it has a bright future before it.

THE ALLAHABAD UNIVERSITY MUSIC ASSOCIATION

The Allahabad University Music Association was inaugurated in the year 1926 under the presidentship of Dr. Tara Chand. The aims and objects of the Association were to propagate music among the students of the University. Mr. Kanahiya Lal was the first Secretary of the Association. The Association started a Music Class with 17 students in the 1st year of its existence, and two teachers were appointed. The classes were held upstairs in the Vizianagram Hall where they are still located owing to the lack of a separate building. Next year, in 1927, Dr. D. R. Bhattacharya took up the presidentship of the Association and since then his untiring efforts for the cause of Music have created a revival in the art throughout the length and breadth of these provinces.

During the last 10 years the teaching of Music in the University has steadily developed and at present there are over 120 students on its rolls and 8 teachers.

Under the auspices of the Music Association the first A. U. Music Conference was started in the year 1930 in the Vizianagram Hall during the Christmas holidays. The three successive sessions of the Conference took place in the same hall. In 1934, the Conference was held in the Senate Hall as the Vizianagram Hall proved to be too small for the purpose. The organization of the Allahabad University Music Conference by Dr. D. R. Bhattacharya has established a reputation of its own. In 1935, a joint session of the Sixth Allahabad University and the Seventh All-India Music Conference was held in the Senate Hall. The same year, the Association arrived at an understanding with the Prayag Sangit Samiti to hold the Conference in alternate years. In 1936, the University took up the teaching side of the Association under its own control and a Department of Music was created which has attained a status equal to that of other departments. The syllabus of Music is a two years' course of study and the successful candidates are awarded a diploma in Music. In 1937, the first batch of three students was the recipient of the Diploma in Music from the University. It is intended to open a Senior Diploma (a two years') course, provided funds are forthcoming.

ORIENTAL SOCIETY

Realising the great importance of the classical studies, particularly of Sanskrit, in every sphere of human existence in India, it was found necessary to open a separate Sanskrit Branch of the Old Muir Central College Historical Society. This Branch functioned for some time quite well; but later on, it was realised that it would work more satisfactorily, if it were separated from the old fold and placed on a new footing. Accordingly, at the instance of Professors Dr. Ganganatha Jha and M. H. Nasiri, the new society was inaugurated with Dr. Jha as its president on October 21, 1916 and was named as 'The Muir Central College Oriental Society'.

This new Society concerned itself with the classics—Sanskrit, Arabic and Persian, as also with the Modern Languages, and not only with Sanskrit as before. This newly constituted Society attracted teachers and students from other Departments, such as, Economics, History and English, who took active part in the deliberations of the Society. They read papers of high standard and discussed them.

Some of the important papers read before the Society included—'Vagaries of Oriental reasearch' (Dr. Ganganatha Jha), 'The Study of Sanskrit as an essential factor of Hindu Culture,' and 'Spirit of Sanskrit Drama' (Professor Shivadhara Pande), 'Military Organisation in Ancient India' (Avadesha Prasad Sinha), 'Persian Literature in the Mediaeval Age' (Professor M. H. Nasiri), 'Mediaeval Sanskrit Poetry from unpublished sources' (Professor Amaranatha Jha), 'Punjabi Poetry' (Professor G. D. Karwal), 'Indian Superstitions' (Professor A. C. Mukerji), 'Terminology of Political Science applied to Ancient and Mediaeval India' (Mr. now Dr. Beni Prasad). Some of these were, later on, published in the Muir Central College Magazine.

Thus, this new Society supplied scope for exchanging views between teachers and students of various subjects. Members worked together with wider outlook and greater vigour. Not only in theory but in practice also they found that the inclusion of Modern Languages did really add to the life of the Society. In fact, they cannot prosper without the aid of the classics which provide the very grounding for the gradual growth of the Modern Languages on sounder lines.

The Society continued its activities as long as Dr. Jha was here in the Muir Central College. But this child of his was yet an infant when he was transferred to Benares in 1918, and it dragged on like an uncared-for orphan till it came, at last, to a dead pause.

Fortunately for the Society, Dr. Jha returned to Allahabad as the Vice-Chancellor of the reorganised University in 1923. Just after this, the Society, at the instance of Professors P. K. Acharya and Nami, was revived under the patronage of Dr. Jha. Even then besides the classics, Modern Languages were also included in the activities of the Society. But this could not continue for long. The modern languages of Hindi and Urdu, which were recognised as optional subjects by the University, came to have their separate and independent existence. They started their own independent Societies and severed their connection with the Oriental Society. But it would not be out of place to point out here that though they have cut off their relations with the Oriental Society and perhaps even may like to get rid of the classics, yet they cannot help to neglect them, if they want to do something substantial. Perhaps they would have achieved much more substantial results had they liked to work along with the classics.

Unfortunately, the classics, especially Sanskrit, are being neglected everywhere in these Provinces. The Government too does not like to extend even that much of sympathy which it has done to other modern subjects. Christian missionaries all over the Provinces are gradually abolishing Sanskrit classes from their institutions. The market value naturally has very much fallen down. But this is not a good sign. We should not forget that it is the classics alone, especially Sanskrit, which can rightly boast of preserving the best ancient traditions of the country. It alone can lend a helping hand by way of supplying original materials to almost all the modern subjects for higher researches, as it has got both the educational and cultural value. In fact, at no stage of our higher studies can we afford to neglect Sanskrit. And this is the reason why it is, even now, being so much honoured and studied in other parts of our own country. Even in the Western countries, the study of Sanskrit is being encouraged both by the Government and the public. But it is simply regrettable that we here should be so idle towards its advancement. The fact, however, can hardly be denied that India will become too poor in her literary and cultural aspects, in the long run,

if no proper care is taken to enhance the cause of classics in the near future. The same is the fact with Arabic and Persian also.

In this respect our Society has been of considerable help. It gives an opportunity to all those who do not get any chance to study classics directly, but have keen interest in it. Here they can freely meet with those who are in direct touch with the classics and can know much about their ancient treasures. With this aim in view, the members of the Society have been carrying on different functions under its auspices. They hold debates, essay competitions etc. and read papers which are published in its Bulletin. In brief, it has justified its existence and rightly deserves every encouragement from the authorities.

THE CHEMICAL SOCIETY

The Allahabad University Chemical Society was founded in 1922, with Prof. N. R. Dhar, D.Sc., F.I.C., I.E.S., as the President, the late Prof. S. C. Deb as Vice-President, and Mr. (now Dr.) P. B. Ganguli as the Secretary. The Professor of Chemistry in the local Intermediate Colleges were members of the first executive committee of this Society; and membership was open to all Intermediate and University Chemistry students with a view to popularize the Science. It is gratifying to find that since then two other societies have come into existence, the Chemical Society of the Ewing Christian College, and the Science Association of the K. P. Intermediate College. The excellent work that they are doing is a matter of pride to us from whom they originated.

This is the sixteenth year of our Society and during the lengthy period of its progress, it has uniformly maintained its original reputation and traditional excellence. The activities of the Society have always aimed at inculcating chemical knowledge amongst its members, intended for the furtherance of human culture and happiness and the alleviation of human suffering. There have been lectures on popular and technical subjects, chemical essay contests, exhibitions, excursions to places of chemical interest and also the publication of the Bulletin

of the Society at the end of each academic year, containing valuable contributions from the members of the Society.

The following members of the staff have been Presidents of the Society :

Prof. N.R. Dhar, D.Sc., F.I.C., I.E.S.	1922—1926
Mr. S C. Deb, MSc.	1927—1929
Mr. K. P. Chatterjee, M.Sc.	1930
Dr. S. Dutt, M.A., P.R.S., D.Sc.	1931—

The Vice-Chancellor of the University has always been the Patron of the Society; to him, it has always been indebted for contributions towards the cost of publication of the Annual Bulletin. There are two essay contests every year—one for undergraduates and another for the senior students; prizes are awarded to the best essays in each class as decided by a panel of 3 separate judges. The subjects set are of great importance involving very often the most recent developments in Chemistry in the realm of human benefaction.

THE ALLAHABAD UNIVERSITY HINDI PARISHAD

It was in August 1922 that at the suggestion of the then Vice-Chancellor, Sir Claude de la Fosse, Mr. Shivadhar Pande founded the University Hindi Association with the following aims and objectives :—

- (a) to organise lectures, debates, study classes, elocutionary contests, etc., in Hindi;
- (b) to promote composition in Hindi prose and poetry;
- (c) to propagate zeal for research in Hindi; and
- (d) to foster love for Hindi literature.

The first general meeting presided over by Sir Claude de la Fosse, was held on 27th October, 1922. Since that time onwards the Parishad

has been functioning with due dignity and an efficient standard of work and zeal. The Parishad has been organising various debates, *e.g.*, the Inter-Hostel Hindi Debate, the Inter-University Debate etc. From 1922 to 1930 the Parishad also organised an Intermediate College Debate. This has since been discontinued. Particular mention must be made in this connection of Mahamahopadhyaya Pandit Ganganatha Jha, ex-Vice-Chancellor, then *ex-officio* President of the Parishad and Mr. Siya Ram Chaturvedi, the Secretary of the Parishad in 1923-24. It was mainly due to them and their co-workers on the executive council of the time that His Highness the Maharaja of Benares consented to be the Patron of the Parishad, and the kind support of Raja Munshi Madho Lal, C.S.I., of Benares and Raja Sir Rampal Singh of Kurisuddouli were obtained as honorary members of the Parishad. And it was in their régime that the Raja Moti Chand Cup for the Inter-Hostel Debate, the Hari Pada Ghosh Challenge Cup for the Intermediate College Debate and the Mr. Justice Kanhaiya Lal Cup for the Inter-University Debate were obtained. Our sincere gratitude to them.

The next year, *i.e.*, 1924 saw the establishment of the Hindi Department with Mr. Dharendra Verma as its teacher. The Parishad was handed over to the charge of the department with the Vice-Chancellor as its *ex-officio* President. Under the careful guidance of Dr. Verma the Parishad extended its scope of activities. Research and composition work was much looked after. "The Parishad Nibandhavalī," published by Messrs. Ram Narain Lal, was compiled. Another collection of short stories "Galp-Mālā" was published by the Sahitya Bhawan Limited and of late the Parishad has brought out an authentic and authoritative edition of "Kavitā Ratnākara" of the poet Sena Pati with Mr. Uma Shankar Shukla, M.A., a zealous research worker, as its editor. Special thanks, in this connection, are due to Mr. Ram Kumar Verma, M.A., and Mr. Somanath Gupta, M.A., Secretaries of the Parishad in 1927-28 and 1928-29 respectively. It was in the time of Mr. Verma that most of the essays of the "Nibandhavalī" were compiled and it was with Mr. Somanath Gupta that the first "Galp-Sammelan" with Śyā. Premchand as its President was held for the first time. The Galp-Sammelan continues with us and it has come to form a very important feature of our activities.

Besides, we hold a grand Kavi-Sammelan annually and we have been fortunate enough to receive the kind support of almost all the distinguished poets of our language. Mrs. Mahadevi Verma, one of the well-known poets of our country, has been a member of the Parishad.

We publish a sort of research magazine called "Kaumudi" with Mr. Ramkumar Verma, M.A., as its editor. Last year (1936-37) the Hindi Sahitya Samiti generally known as the Hindi Club was organised with a view to bring together the young amateurs in literature of the University. The idea of this club originated with Mr. Uttam Chandra Shrivastava, B.A., our Vice-President and within the brief period of two years the club has made a mark for itself. Space forbids us from entering into details. We have inherited glorious traditions from our predecessors and we are endeavouring to continue in and improve upon them.

Our treasurer, Dr. Umesh Mishra of the Sanskrit Department, succeeded Lala Man Mohan Das, the premier rais of Allahabad, in his office in 1924.

THE ALLAHABAD UNIVERSITY MATHEMATICAL ASSOCIATION

With a view to creating a general interest in Mathematics and encouraging original work in the subject, the Allahabad University Mathematical Association was started in 1924 with the Vice-Chancellor of the University and Dr. Ganesh Prasad, D.Sc., Hardinge Professor of Higher Mathematics at the Calcutta University as its patrons and Mr. A. C. Banerji as the President.

Since then the Association has been functioning satisfactorily under the chairmanship of Prof. A. C. Banerji, I.E.S., with various staff-members and students as office-bearers. The objects of the Association at present are:—

- (a) To create a general taste for Mathematics and encourage original work.

- (b) To arrange for discussions, lectures and reading of papers by the students, the members of the staff and other persons interested in the subject.
- (c) To arrange for such meetings as may be deemed helpful in providing facilities to the students for coming in closer contact with the members of the staff.

Every year lectures of general interest in the subject are delivered by eminent mathematicians and papers are read by students. Essay contests are held and medals are awarded for the best essays from the undergraduate and the post-graduate classes respectively.

The Association publishes an annual bulletin consisting of such of the papers read and the lectures delivered at the meetings of the Association, as are of sufficient merit and information and are of general interest and importance.

The Executive Committee of the Association consists of a President, two Vice-Presidents, a Secretary, an Assistant Secretary, two Members nominated by the Secretary, and one representative from each Mathematics class.

At present, the Vice-Chancellor of the University and Sir Shah Mohd. Sulaiman, Kt., Judge of the Federal Court, are the Patrons of the Association.

ALLAHABAD UNIVERSITY LAW SOCIETY

The objects of the Society are :—

- (a) To afford to its members all the usual privileges and amenities of a University Club.
- (b) To hold moot courts and debates, to arrange lectures and to publish a magazine.

On 31st of August, 1937, Pt. Jawahar Lal Nehru addressed a crowded gathering of University students, under the auspices of the Law Society. The subject of the lecture was "Revolutionary Tendencies in Law."

Another interesting lecture was given by Babu Sangam Lal Agarwala, M.A., LL.B., Advocate and Vice-Chancellor of Prayag Mahila Vidyapith, on the 16th September, 1937. Mr. Agarwala, who is the author of a scheme of "Literacy in Six Weeks," spoke on "How to liquidate adult illiteracy in U.P." The lecture was well attended and proved to be very interesting and highly instructive.

A very interesting debate was held on the 25th of September, 1937, the subject being "that in the opinion of the house a constituent assembly based on adult suffrage be forthwith summoned to replace the Government of India Act 1935, which is reactionary and does not satisfy the aspirations of the Indian people."

Sir Syed Wazir Hasan, Kt., was among the speakers. The motion was carried by an overwhelming majority.

Preparations are being made in all earnestness to hold a moot court in the Jubilee Week. The "Bhattacharya Prize Debate," and two lectures by Mr. S. P. Sinha, Advocate, and Dr. K. N. Malaviya respectively will be held in the month of November.

The University Law Society has started a "Chowdhary Memorial Fund" to enable them to perpetuate the memory of the late Prof. S. C. Chowdhary, who was the founder of our Society: a committee has been formed to collect the contributions.

We are glad to find that the work is progressing satisfactorily. We also take the opportunity to appeal the generosity of all the friends, admirers and students of the late Mr. Chowdhary, to subscribe liberally to this noble cause.

ZOOLOGICAL SOCIETY

The Society was practically inaugurated in 1921, but it was known as "Biological Union" as, at that time, both Zoology and Botany were taught in one department. Later on, in 1934, when separate departments were created for either, it was found impracticable to carry on the functions of the Union jointly. Hence it was decided to split it up into

two associations, called the "Zoological Society" and the "Botany Association," respectively. The Society in its present form, therefore, came into being in 1934.

The Society has been helpful in creating interest in the study and advancement of this great natural philosophy amongst its members. During the years under report, the following lectures were delivered by eminent Zoologists of the Province :—

1. Dr. B. Mirza of Aligarh Muslim University on "Blood" and "Size and Weight of Brain."
2. Dr. A. B. Misra of Benares Hindu University on "Symbiosis."
3. Dr. Burch Schenider of the Agricultural Institute, Allahabad, on "Mendelism and Cattle Breeding."

The following members of Society also read papers on the subjects noted against them :

1. Mr. A. Aziz on "Ductless Glands."
2. Mr. Raja Ram Singh on "Civilisation and Intelligence in Animals."
3. Mr. Shanti Swarup Gupta on "Courtship in Animals."
4. Mr. Ram Gopal on "Pathogenic Protozoa."

With a view to promoting closer contact between the teachers and the taught the Society has been arranging picnics every year to places of interest near Allahabad. It went to Tanda Falls and Ashtbhuja in the district of Mirzapore and Naini respectively. It has arranged long trips also. It went to Puri and Bombay. The members of the Society go to these places not for mere enjoyment; they do important work also by collecting specimens for the Museum of the Department. At present the Society is not able to arrange long trips as the grant from the University, which used to be given previously, has been stopped. But still the Society carries on its work from the voluntary nominal subscriptions from its members.

The Society also awards scholarships to students. At present two scholarships are awarded, every year, to deserving students of the First and Second Year Honours classes respectively.

Representatives of the various classes are members of the Executive Committee, which controls the functioning of the Society.

The Society is progressing day by day under the able guidance of Dr. D. R. Bhattacharya, our Head of the Department and permanent President of the Society.

THE BOTANY ASSOCIATION

It was in the year 1921 that the biologists of our University decided to start a Biological union. Zoology and Botany were then taught in the same building which is now the Zoological laboratory. Activities of that union consisted mainly of lectures by teachers and students of Biology and also at times by distinguished outsiders. Once or twice a year there was a picnic or other social function.

It was observed that the majority of science students had a very narrow outlook on life, having indeed too limited a knowledge of things outside their text-books and lecture notes. The need for creating an interest in a more general and wider knowledge of Biology and for creating a wider outlook was keenly felt; and it was this idea which led to the inauguration of a Biological Union.

After a time, however it was felt that Botany and Zoology could more profitably express themselves and carry on their activities if each subject had its own separate association. A general meeting—the last meeting of the Biological Union—was then called at which the proposal for a separation was mooted and discussed. In spite of a certain amount of opposition from those, who were unwilling that a close and friendly cooperation should cease, the proposal was carried and the Biological Union was dissolved.

The first general meeting of members of the staff and the students of the Botany Department was held on Monday, 20th August 1934, in the Botany Lecture Theatre, under the presidentship of Dr. Mitter, who emphasised the need of a separate Botanical Association and the members unanimously resolved that 'an Association be formed and

henceforth called the Botanical Association, University of Allahabad.' All the students and staff members were enlisted as members of the Association. No membership fee for the association was charged. An executive committee was formed comprising of the President, Secretary, Treasurer and five class representatives, one from each class. Dr. Shri Ranjan was the first president of the Association. The association made a promising start. On 26th October, 1934, Prof. Amaranatha Jha gave an instructive conversation relating to his visit to the continent of Europe. He also referred to the position of girl students in the foreign Universities. Dr. Ram Kumar Saxena, D.Sc., delivered a lecture on 30th November, 1934, on 'The presence of extra-nuclear matter in cytoplasm and its rôle.' He gave various theories of the Choudriosome system and golgi bodies and discussed them exhaustively. On 30th August, 1935, Mr. S. C. Roy, Deputy Director of Agriculture, U. P., addressed a crowded meeting on 'Plant Breeding.' He dealt with researches carried out at the sugar farm at Coimbatore and the work done in various governmental farms in U.P. Mr. P. R. Mehta of our department spoke on 'Plant diseases and their control' on 24th September, 1935. He described various diseases and their causes and suggested methods for their control. On 11th November, 1935, Dr. G. T. Kale told us about the researches carried on by him in France to produce a variety of wheat having a larger gluten contents. Dr. Shri Ranjan gave a very interesting talk on 'Senescence and death.' He suggested various methods by which death could be postponed for a time. He satisfactorily answered many curious questions which were put from amongst the audience. Dr. J. H. Mitter described in a very interesting manner, on 24th August, 1936, his experiences, while on a round the world tour. He also described the characteristic customs of the far East, especially a mass wedding at Shanghai which impressed him very much. On 22nd September, 1936, we heard the Jewish version of the Palestine situation from Dr. Emanuel Olevanger. He called upon us to sympathise with Jews, who, being driven away from Germany, are in a very pitiable plight with no place to settle in. At the end of his lecture he aptly answered many questions raised by the audience. An illustrated lecture was addressed by Dr. R. K. Saxena on the History of the 'living cell' on 2nd October. Prof. N. R. Dhar delivered a lecture on 'New Methods of Crop Production'. Mr. R.

N. Tandon gave a well illustrated and interesting lecture on "Some Friends and Foes of the Plant Kingdom" in January 1937.

It is this kind of work, that the Association has been undertaking in an endeavour to broaden the outlook of students and awaken in them an interest for general knowledge. We also arrange picnics once or twice a year to enjoyable places. Picnics are, alas, often better attended and more successful than lectures even though they are heavily taxed.

THE POST-GRADUATES' ENGLISH ASSOCIATION

In order to widen the interests of the students of the Post-Graduate classes, and to make it possible for them to enjoy the benefit of listening to lectures devoted to English Literature, this association was formed in 1936, under the Presidentship of Professor Amaranatha Jha, Head of the English Department. It was further hoped that the students, by thus coming into contact with one another outside University hours, would cultivate a healthy social relationship.

The Association showed signs of great promise from its very start. For this the credit goes to the President and to the first Secretary, Mr. V. B. Mathur, who did not rest until they had given the association a good start. It was thought right that only the students who had passed out of the graduate stage should be allowed to voice their opinions on the different authors and topics they had been taught. Mr. S. K. Laghate addressed the Association at its opening by reading out a very illuminating paper on "Shakespeare's use of Prose." This was later followed by Mr. R. N. Kao's paper on "Browning" and Mr. R. S. Tandon's paper on "Shelley." All the meetings were very well attended and it redounds to the credit of the speakers that the audience neither went to sleep nor yawned in boredom. The last meeting to be held was fitly called to bid farewell to the students of the final M.A. class, who were to leave the University at the end of the session. This time the students of the Previous class entertained their brethren. The 'At Home'

that they gave was a singular success. It was easy to see how far the aim of the Association of furthering socialities among its members had progressed. On this occasion Dr. Dustoor had been called upon to read a paper. He instructed, and in his characteristic manner, amused the assembly with a few very good hints on "the Study of Literature." And as if good things were never to end on this particular evening, the President himself got up and spoke to the students. The year had seen four meetings of the association. More could not be held due to the fact that the time at the disposal of the students is heavily engaged by the other extra-mural activities with which our University abounds.

This session our time will be very limited owing to Jubilee celebrations, but it is hoped that we shall have a number of 'socials' and meetings at which it is intended to call eminent outsiders and we look forward to a glorious year.

ECONOMICS CONVERSAZIONE

The "Economics Conversazione" is partly a social and partly an association for intellectual benefits for the M.A. Final students in Economics. It is of recent origin, having been started only in 1935, at the initiation of our present Head of the Department, Professor S. K. Rudra.

It was felt that the formal class-lectures together with the seminars were not meeting the increasing needs of a freer and fuller discussion of the manifold economic problems and also that the contact between the teachers and the students was fading away. Hence in order to achieve both objectives, this association was inaugurated in 1935.

The Conversazione meets every week on Thursday afternoon. Papers on economic problems are read, either by members of the Conversazione (staff or student) or by any distinguished outsiders. This is followed by a discussion among the speaker and the members of the association. Members have evinced keen interest and have greatly profited by these meetings.

Tea is also provided in every meeting by the students in turn. Towards the end of the session the staff gives an annual dinner to the members of the *Conversazione* in which outsiders are also invited, both from the University as well as from the gentry.

The Head of the Department is the *ex-officio* President of the *Conversazione*.

The meetings are organized by the Master of Ceremonies who is elected from the M.A. Final class. Mr. Sajjan Lal Sah, M.A., LL.B., was the first Master of Ceremonies followed by Mr. Krishna Swarup Bhatnagar, M.A., in 1936-37.

Ever since the formation of this *Conversazione* the Head of the Department has been thinking of providing similar opportunities to the students of the M.A. Previous class also, but only this year a parallel association for their benefit has been started under the caption of "The Busy Bees." This name has been particularly given to this association because Busy Bees form the symbol of the Royal Statistical Society.

Apart from the members, the following have been the principal speakers:

Acharya Kriplani, Mrs. Vijay Lakshmi Pandit, Th. Kuldip Narain Singh, Dr. Schnieder, Dr. Sam Higginbottom, Sir T. Vijayraghacharyar, Dr. N. R. Dhar, Dr. S. K. Dutta, Dr. Ram Manohar Lohia and Dr. Z. A. Ahmad.

ALLAHABAD UNIVERSITY PHILOSOPHY ASSOCIATION

After a lapse of some years 'The Allahabad University Philosophy Association' was revived last year to 'create and further interest in Philosophy and other allied sciences by arranging lectures, debates, essay-competitions and such other functions.' The inaugural meeting was held on the 11th January, 1937, when Mahamahopadhyaya Dr. Ganganatha Jha addressed the association. Prof. R. D. Ranade was in the chair.

Though the association began its work very late, the following interesting lectures were arranged:—

Mr. N. C. Mukerji delivered a lecture on 'The Revolt of Youth'.

Mr. R. N. Vaishnavi gave an interesting discourse on the "Technique and importance of interview in vocational guidance."

Shree Sadanand Brahmachari (Herr Earnest George Schulze), an ex-professor of Philosophy from Germany, delivered an illuminating speech on 'Where East and West can meet' before a crowded gathering. Dr. Beni Prasad, head of the Politics Department, presided.

An essay competition was organised for the undergraduate members of the association. The subjects for the essays were "Socrates—his method and teaching," and "Concept of substance in modern Philosophy" for the 1st and 2nd year respectively.

The last function of the session was the Annual Meeting, which was a great success. The Hon'ble Sir Shah Mohammad Sulaiman addressed the Association on this occasion. His speech was a brilliant attack on the metaphysical implications of the Einsteinian Physics. Pt. Iqbal Narain Gurtu was in the chair. The meeting was followed by an 'At Home,' at which about sixty guests were entertained to sumptuous refreshments and a brilliant musical programme.

Our thanks are due to Mr. J. C. Wahal, and the other members of the Working Committee to whom we owe a great deal.

THE GRADUATES' POLITICAL SCIENCE CLUB

Founded in 1931, the Club consists of the teachers and post-graduate students of the Department. Its meetings are usually preceded by a tea. Besides philosophic topics, the club discusses current problems and throws out suggestions for their solution. Many distinguished persons have from time to time participated in its deliberations. Special mention may be made of a meeting in 1932, which discussed methods of representation and which was presided over by the Rt. Hon'ble Sir Tej Bahadur Sapru. Here was first broached the method of double election for the depressed classes which formed the basis of the Poona Pact and

which was instrumental in terminating Mahatma Gandhi's famous fast. The gist of the discussions at this meeting was also incorporated in a pamphlet by Dr. Kailash Nath Katju and circulated among the members of the Unity Conference convened by Pandit Madan Mohan Malaviya.

It may be added that the club has neither a constitution nor any regulations. Nothing has occurred so far to disturb the cordiality of its proceedings.

THE POLITICAL SCIENCE ASSOCIATION

Founded in 1928, the Association has sought to stimulate discussion on problems of political philosophy and organisation on a high academic plane. Its membership comprises all the teachers and students of the Politics Department, while the Executive Committee consists of the teachers with the Head of the Department as ex-officio president, a vice-president, secretary and assistant secretary elected at the Annual General Meeting and a representative from each of the four classes. A number of distinguished teachers and publicists from various parts of India and outside have spoken on various subjects under its auspices. Essay competitions are also organized for the undergraduate members. Incidentally, the Association has been the means of training a number of students in organising work.

FRIDAY CLUB 1932—1937

On August 22, 1931, a few students and teachers met in the English Department. They were drawn together by a common need. They had all felt the want of a centre where intellectual earnestness and sociability should form the basis of contact. The 'Friday Club' was founded. Its name was a lucky hit—quite non-committal and just intriguing enough. The foundation-members were clear about one thing: to ensure its success, it should never be allowed to become unwieldy. It

has therefore continued with a very limited membership. This should explain its reputation for exclusiveness—though it isn't a complete explanation, for on one occasion, thirteen names were proposed to fill a vacancy. No one was elected. Some thought, thirteen was a bad number; but the members were only a bit too jealous of their reputation.

During the first year of its life, the club had a praise-worthy record of activities. When at the close of the session, some of its leading spirits were leaving the University, those who stayed behind promised: "we shall be best showing our appreciation of their efforts by ensuring the continued existence of the Friday Club."

The promise has not been forgotten, though the first year's work was beyond emulation. During the working terms of the last five years, the club has met almost every week. It has given dinners, held picnics, and entertained visitors. It has staged plays and has presented every year at least one play selected not because it would be "catching," but because of its superior artistic excellence. With its limited resources the club has also aimed at stage-settings in accordance with the modern technique of dramatic production. For the first time in the history of the University the Friday Club established the convention of staging plays in which students and teachers and ladies have all acted together.

On the literary side, the members have, besides giving selected readings, read their own compositions,—poems, short stories, essays and criticism. The statement of work appended below will indicate the range of their interests and activities. But there is no record of the rounds of tea served at the club meetings, of the jokes and repartees that have been exchanged and of the tingling laughter and merriment. The Club has no written constitutions. But it has some traditions which it values. The foremost of these is "clubbability."

Statement of Literary work done by members of the Friday Club,
1932-1937*

Aditya Nath Jha : *Thomas Traherne and the Poetry of Childhood.*

Bhawani Shankar : *W. H. Davies.*

Aditya Nath Jha : *The Prose-Epic of a Chimney-Town.*

* The work done in 1931-32 has been noticed in an article by Mr. D. B. Dhanapala.

- R. N. Deb : *D. H. Lawrence.*
- R. N. Deb : *T. S. Eliot.*
- R. G. Rajwade : *The Poetry of Sarojini Naidu.*
- K. W. S. Jardine : *Modern Painters.*
- Mahesh Chand : *Modern Criticism : A Parody.*
- Mazhar Aziz : *Toru Dutt : Her Life and Works.*
- M. A. Jamil : *The Poetry of Iqbal.*
- Bhagwat Dayal : *The Indian Stage.*
- R. N. Deb : *Four Modern Poets.*
- Bhawani Shanker : *The Poetry of John Masefield.*
- Aditya Nath Jha : *Apollo and Marsyas.*
- N. P. Chatterji : *Aylwin, by Theodore Watts-Dunton.*
- Lallan Prasad Singh : *Modern Hindi Poetry.*
- Girijapati Mukherji : *J. E. Flecker.*
- Girijapati Mukherji : *An Essay.*
- Kewal Krishna Mehrotra : *On the Malady of the West Through
Eastern Eyes.*
- P. E. Dustoor : *On the Study of Literature.*
- F. L. Sheldon : *The Suave Thief : A Playlet.*
- R. N. Deb : *Fairy Tales.*
- Amaranatha Jha : *The Graves of Three English Poets.*
- K. K. Das : *Fame.*
- Harishwar Dayal : *An Essay.*
- P. E. Dustoor : *Spooner Seed.*
- Bhawani Shankar : *Robert Bridges.*
- R. N. Deb : *Blood Money : A Story.*
- F. L. Sheldon : *Under the Black Robe.*
- F. L. Sheldon : *Capital Punishment.*
- Bhawani Shankar : *The Poetry of Rudyard Kipling.*
- Ranjit Ghose : *Fountain, by Charles Morgan.*
- R. N. Deb : *The Art of Amrita Sher-Gill.*

Jagdish Chandra Mathur : *The Novels of Bhagwati Charan Varma.*

R. K. Chatterji : *Byron.*

P. E. Dustoor : *Rendering Unto George : A Story or a Fact.*

P. E. Dustoor : *A Ballade of the New Constitution.*

One-Act Plays acted by the Members of the Friday Club :
1934-1936.

The Maker of Dreams by Oliphan Down.

A Night at an Inn by Lord Dunsany.

The Intruder by Maurice Maeterlinck.

The Boy Comes Home by A. A. Milne.

The Rising of the Moon by Lady Gregory.

The Bronze Lady and the Crystal Gentleman by Henri Duvernois.

Father Noah by Geoffrey Whitworth.

FRIDAY EVENINGS

By D. B. DHANAPALA

The top-most towers of the English Department of the University belongs, by right of occupation, to wild pigeons. Under one of the lower towers, on a certain Saturday evening in August—to be precise, the 22nd—a small company had gathered.

They sat round, perching themselves anyhow in the golden light of a departing day. Reading from the left, as the picture-papers would say, one could observe, among others, Prof. Sidhanta of the Lucknow University, Prof. Amaranatha Jha, Messrs S. C. Deb, Bhawani Shankar of the Allahabad University, R. N. Deb, Zafarul Ahsan Lari, Yogeshwar Mukerji. Amongst them all, Adityanath Jha, with his placid smile of the pleased man, was playing the host.

The party talked loud and long—as parties always do. The chaos of words poured forth was not perhaps enough to make a world. Yet it was enough to make a club.

For, as each one spoke out his mind to the evening air, punctuated by the cries of pigeons from the top-most towers, little by little, the idea of this club, from being an airy nothing, was given a habitation and a name.

In that meeting certain decisions were made. If I may put them down in an extremely formal form, they might read thus:—

1. That the name of the club should be **THE FRIDAY CLUB** and it should meet on every Friday.
2. That the club will read or discuss original literary attempts of members as well as published work of recognised writers.
3. That the club need not necessarily confine itself to the medium of English and to English writers.
4. That the scope of its activities should not be limited to things literary but should be extended to art as well.
5. That the membership of the club should be limited to fifteen University Graduate-men exclusive of those members of the University staff whom the members think it fit to invite to be permanent co-opted members.
6. That each member of the club shall in turn be host of the evening at the weekly club meetings and that arrangements for refreshments should be made by the Master of Ceremonies.
7. That D. B. Dhanapala may be permitted to act as the Master of Ceremonies for the time being.

Since that long august Saturday evening, week in week out the club has met. What we did in the meetings the Editor of the *Friday Club Annual* describes thus : “ Our main function as a club is to take tea together once a week; sometimes, but not with the regularity of ordinary institutions, we submit to a few minutes of boredom; always we talk and laugh. Nor do we talk philosophy and literature alone; art and history and religion come within our purview: and secretly let it be whispered, good-natured scandal is not altogether taboo. Cakes and ice-cream; sandesh and samosa; cutlets and cream-

rolls and sandwiches: D. H. Lawrence, Lytton Strachey, A. E. Housman, Edmund Blunden; poetry and drama and fiction—we thrive on varied fare, rich and generous and high-heaped”

Not that we have always been personified gossip columns of funny papers. During the last few months the members have worked hard. It would be idle to give a list of all the work they have done. Not taking into consideration mushroom skits and stories and plays and sundry poems, the following papers have been read at the club :—

1. “ Thornton Wilder ” by Adityanath Jha.
2. “ Mark Twain ” by Mahesh Chand.
3. “ Thomas Hardy ” by R. N. Deb.
4. “ Lytton Strachey ” by Mr. G. S. Chunecker.
5. “ A. E. Housman ” by Mr. Bhawani Shankar.
6. “ Edmund Blunden ” by Mr. S. C. Deb.
7. “ The North Indian Stage ” by Mr. Bhagwat Dayal.
8. “ Candida ” by R. G. Rajwade.

In the meanwhile, Kalka Prasad Singh the cartoonist, was far too busy with his brush for our liking. And his work is as devastating as it is clever.

On the 15th of December we rung down the curtain to a very delighted audience after the presentation of two plays: “ The Monkey’s Paw ” and “ The Land of the Heart’s Desire.” Well tapped were all the talents of all the Members on that occasion. But for the work of Mahesh Chandra at the light effects, Mrs. Jardine in costumes, R. N. Deb in stage-settings and directions, Mr. S. C. Deb in helpfully holding the door, Mr. Amaranatha Jha as the convener of the Invitation and Reception Committee, Dr. Bhavanatha Jha as make-up artist, our entertainment would have been an impossibility. Pamela, the fairy-child, will always remain with us as the fairy-child who created a new world by her very presence. Mr. Adityanatha Jha’s talented acting both as player and host on the occasion was very much appreciated. Mr. and Mrs. Jardine were very kind indeed to us in allowing us to turn their prim drawing-room into a rehearsal-room.

Perhaps the most glorious achievement of the Club is the Annual that has been brought out. Chokeful of good things with infinite variety

that age shall never stale, it shows we are no mere tea-bibbers and scandal-mongers. The Editor needs no thanks for the task he has accomplished. Yet, as irony will have it, it is just those who least need thanks that deserve it most.

As Master of Ceremonies, personally I have done my best to do my duties, one of which has been that of putting to useful purpose the excess of the cigarette supply to the weekly meetings. I trust that I have done my bit to the very best of my ability of my already weakening lungs.



SUPPLEMENT OF PICTURES



SIR JOHN HEWETT,
Chancellor.

MUIR COLLEGE STAFF, 1889



Mr. Wright, Mr. Boutflower,
Mr. Gough, M. Zakaullah, Mr. Hill.



1890
MUR COLLEGE.



1890
Muir College Group.



DR. G. N. CHAKRAVARTI, D.Sc., LL.D.



MR. E. A. RADFORD,
Professor,
Muir College, 1904-1927.



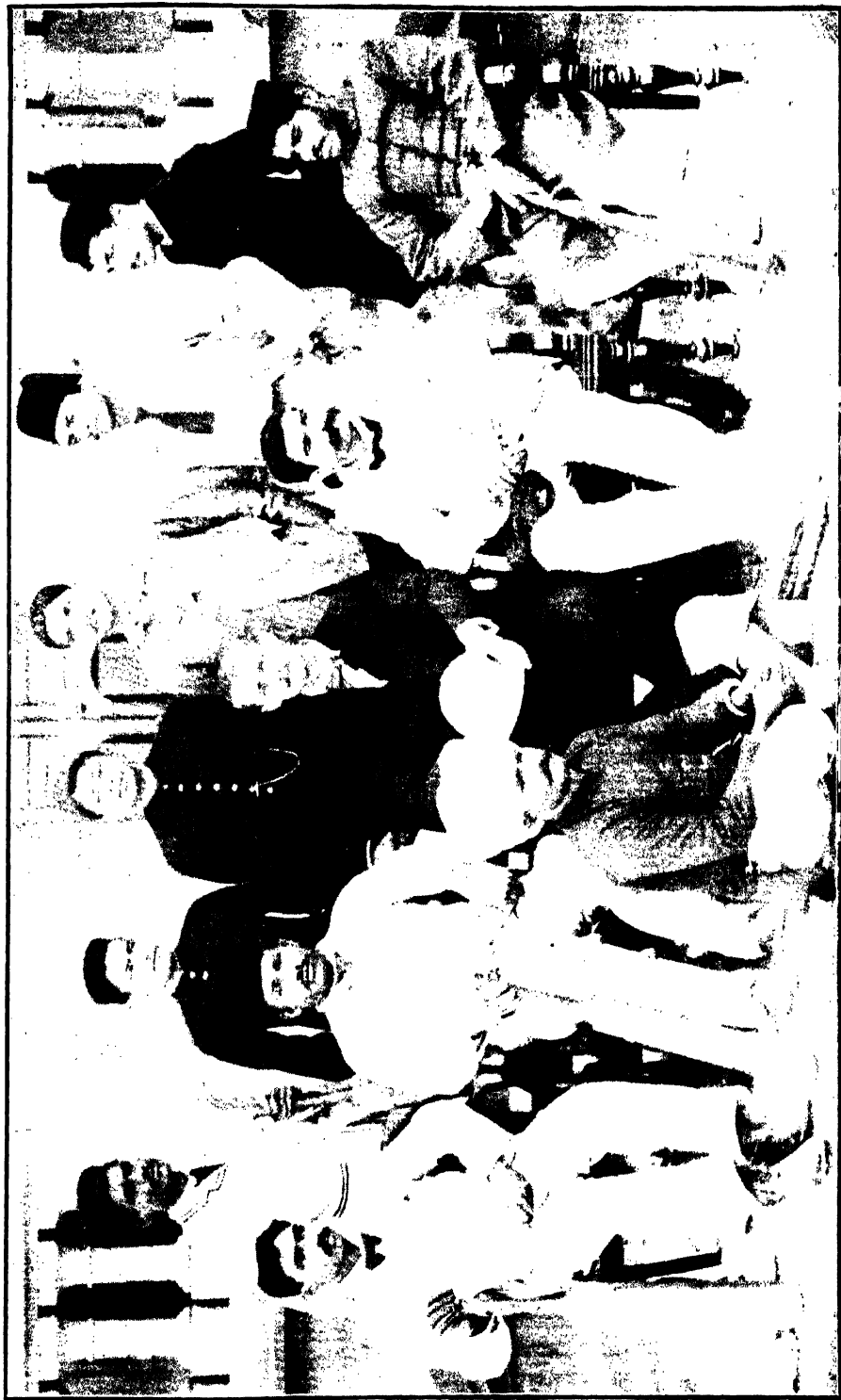
MR. V. N. MEHTA, I.C.S.

MEMBERS OF THE SENATE. UNIVERSITY CONVOCATION, 1895

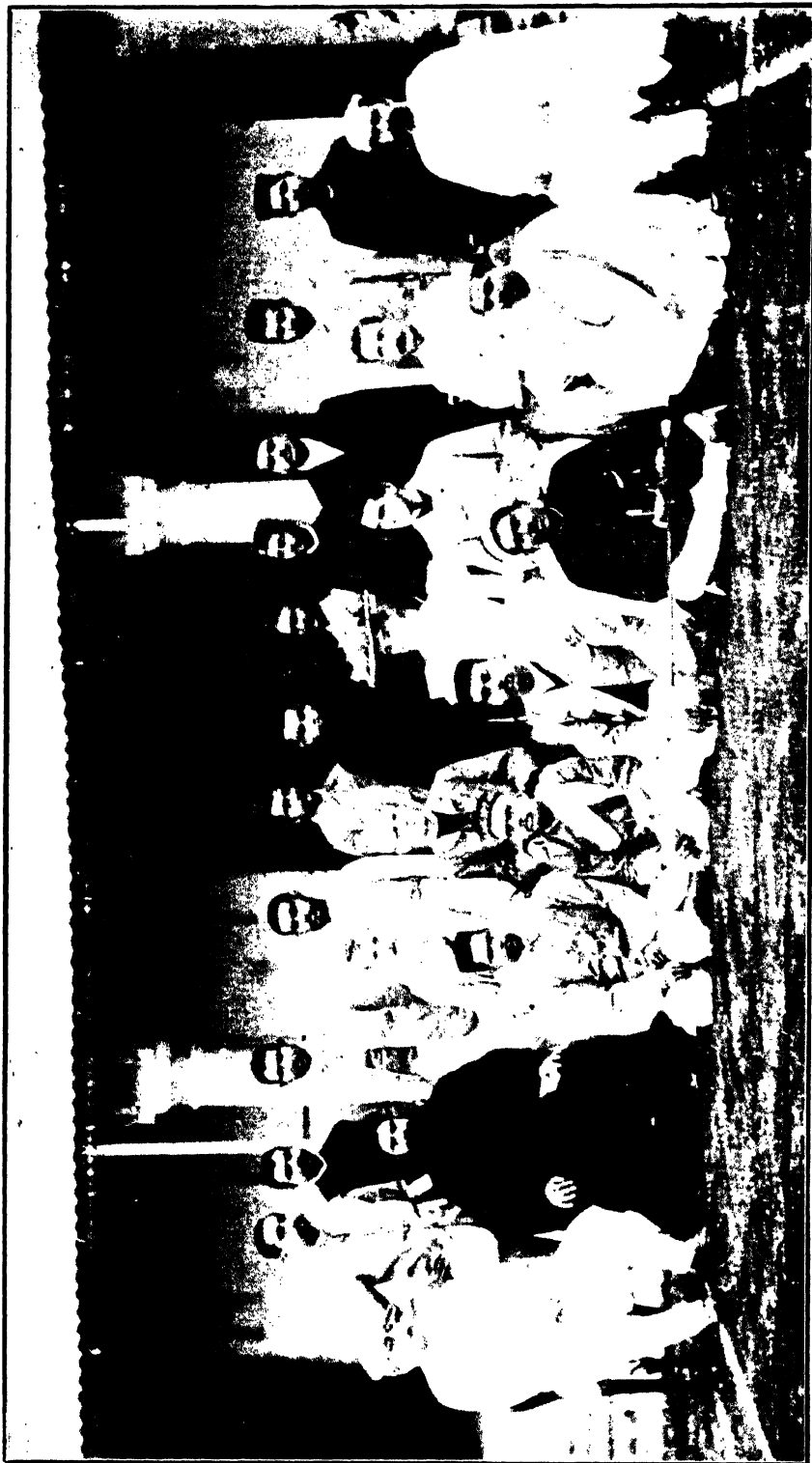


Among those present are : Pt. Adityaram, Pt. Sundar Lal, Dr. Janvier, Dr. Thibaut, Mr. Chakravarti, Sir George Knox, Mr. Conlan.

MUR COLLEGE CRICKET TEAM, 1898



Choudhry Ram Bahadur, Rai Sahib C. D. Pande, Rai Bahadur Durga Prasad, Mr. P. K. Ray, Mr. Jinnah, Mr. Shaw,
Mr. J. M. David, Mr. Raza Hussain, Dr. Hill, Mr. Gordon, Hon. Sir Jagdish Prasad,
Saligram.



1900

Among those present may be recognised :

L. Ram Charam Das, Pt. Adityaram Bhattacharya, Dr. Hill, Dr. Thibaut, Mr. Jennings,



DR. RADHA KUMED MUKERJI
M.A., Ph.D., M.L.C.



MR. W. A. J. ARCHBOLD,
Principal,
Muir College, 1918—1921.



PROF. DIWAN CHAND SHARMA.



MR. J. G. JENNINGS,
Principal,
1905—1913.



1901

Among those can be recognised :

Prof. U. C. Ghosh, Dr. Hill, Mr. Jennings, Mr. Cox, Maulvi Amjad Ali,



Among those present are :

Mr. Jennings, Mr. Dwarkanath Banerji, Pt. Adityaram Bhattacharya, L. Ram Charan Das, Mr. S. C. Deb,



1902

Among those present are :

Mr. Pyarelal Banerji. Mr. Sudarshan Acharya. Pt. Adityaram. Pt. Ramakant Malaviya. Pt. Nilambar Pant.



Among those present may be recognised :

P. C. Banerji, S. M. Sanyal, A. P. Sircar, Prof. W. K. P. French, Prof. H. Cox, Dr. Ganesh Prasad, Dr. Jha,
 Prof. A. C. Mukerji, Mr. S. C. Dey, Mr. D. Ojha, Pandit Kashi Ram.

1906



1907

Prof. Howlett, Prof. Cox, Prof. Durack, Prof. French, Prof. Radford, Prof. Mukerji, Prof. U. S. Bajpai,
 Prof. U. C. Ghosh, Dr. Jha, Mr. Maheshwar Prasad, Rama Piyush Jang.

MUTHU COLLEGE STAFF, 1910



Messrs. N. Dwivedi, S. D. Bajpai, Maheshwar Prasad
 Messrs. A. C. Mukerji, Abdul Ali, Tobit, K. B. Mitra
 Messrs. U. C. Ghosh, G. Jha, S. C. Deb, Sircar, Gardner Brown, Lloyd, S. D. Mukerji
 Messrs. N. G. Dunn, Radford, Jennings, Hill, Durack, Innes.

OPENING CEREMONY OF THE SENATE HOUSE, 1912



Standing—Raja of Bara, Mr. Jesso, Mr. Cole, Mr. Cameron, Mr. MacKenzie, Canon Durant, L. Sukhlair Singh, Dr. Weir, Mr. Sanyal
On chairs—Dr. Gangamathu Jha, Mr. J. G. Jennings, Sir George Knox, Maharaja of Bahrampur, Sir John Howett, Sir Sundar Lal,
 Sir P. C. Banerji, Dr. A. H. Ewing—(*Members of the Students*)

MUR COLLEGE STAFF, 1912



Messrs. R. S. Nigam, Chhagan Lal, S. R. Bhargava, D. D. Joshi, S. D. Mukerji
Messrs. Hamiduddin, A. C. Mukerji, G. Jha, S. C. Doh, A. P. Sircar, K. P. Dubey, K. D. Pandey, D. R. Bhattacharya,
S. A. Pandey, D. N. Pal, J. H. Mitter
Messrs. T. C. Ghosh, Stuart, Radford, Durack, Jennings, Hill, Woodland, Tobitt, Lloyd

THE VISIT OF THE PRINCE OF WALES, 1921



Among those present are : Mr. Durack, Mr. Radford, Mr. Sanjiva Rao, Dr. Janvier, Mr. Baillister, Prof. Jevons, Maulvi Nasiri, Mr. A. N. Jha, Dr. S. A. Khan, L. Sita Ram, Mr. A. C. Mukerji, Dr. Sircar, Mr. Moody, Mr. Mackenzie, Mr. de la Fosse, Dr. Jha, Mr. Justice Gokul Prasad, Dr. Tandon, Lord Cromer, Sir Geoffrey de Montmorency, Sir Harcourt Butler, Prince of Wales.

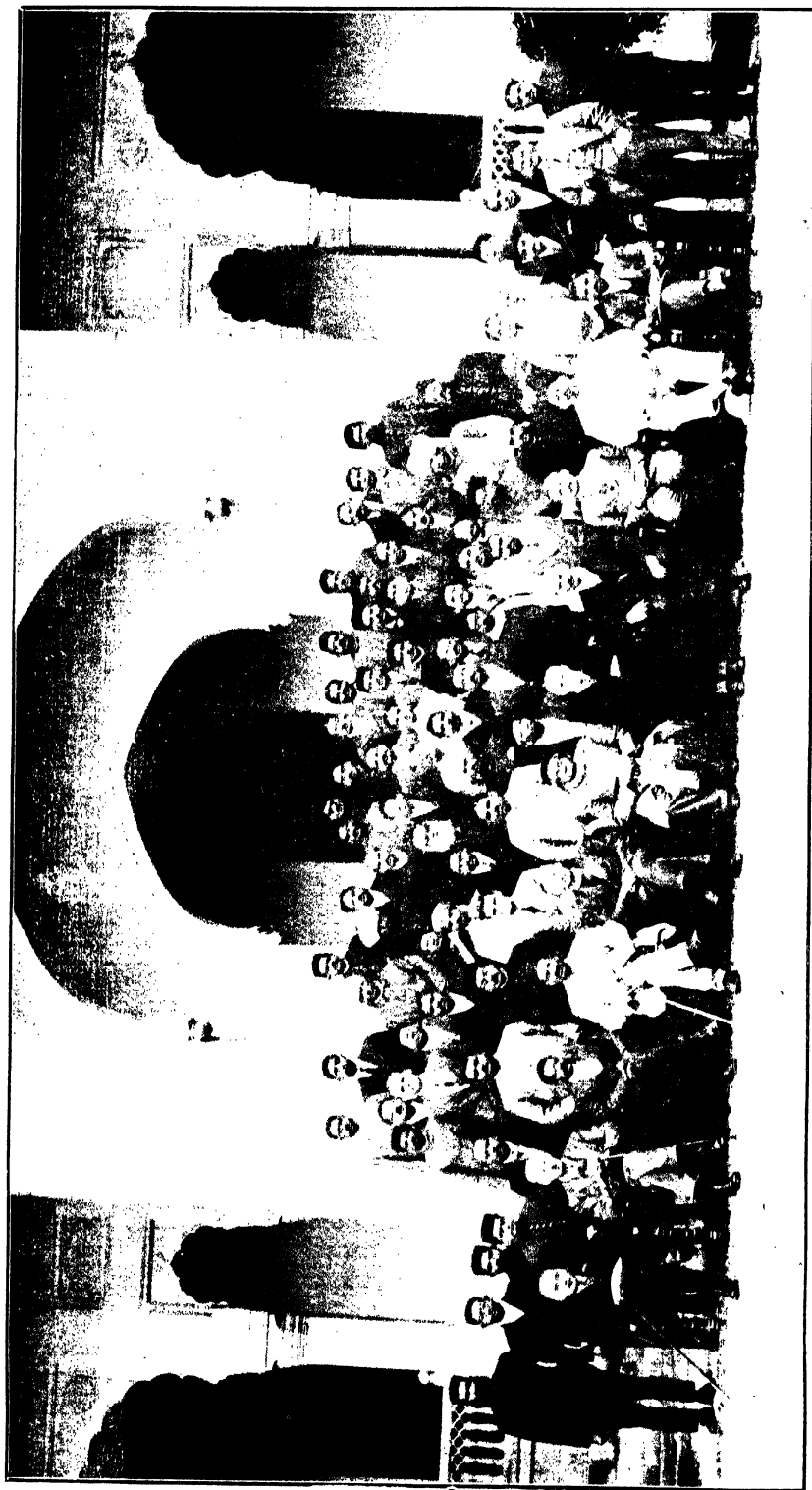
MUTR COLLEGE STAFF, 1921



Messrs. Nami 1913, Pande 1912, Parmanand 1918, Bhattacharya 1910, Malaviya 1921, Chatterji 1916, Das 1920, Bhargava 1912, Karwal 1915, Bhattacharya 1920, Shastri 1915,

Messrs. Acharya 1920, Dhar 1919, Moody 1913, Dole 1899, Radford 1905, Sircar 1907, Burnett-Hurst 1915,
Jha 1917, Banerji 1919, Ewing 1915,

THE SEPARATION OF THE AFFILIATING SIDE, 1926



Standing—Messrs. Chattopadhyaya, Acharya, Kuzun, S. P. Prasad, A. Jha, Tara Chand, Randle, David, Deb, Chhabil Bihari Kapoor, S. A. Khan, Kral, Banerji, Mirrer, Tripathi, Bhattacharya, Deb, Ishwari Prasad, Goelchind, Ruchin, J. Jary, Sudin, A. C. Datta, Hari Prasad, Dhar, Kuzun, Khanna, Gorakhi Prasad, B. N. Prasad, R. K. Sukseem, H. S. Sethi, K. C. Pandya, Goswami, B. R. Saksena, Taluqdar, Shabari, Ghosh, Mukerji, Shukla, D. P. Bhattacharya, Karwal, Ojha

On chairs—Messrs. Dunn, Weir, Bhargava, Diwan Chand, Daytes, Jha, Fielden, Miller, Thompson, Dutt, and Chatterji

340 BS. F. T. C. L. T. R.



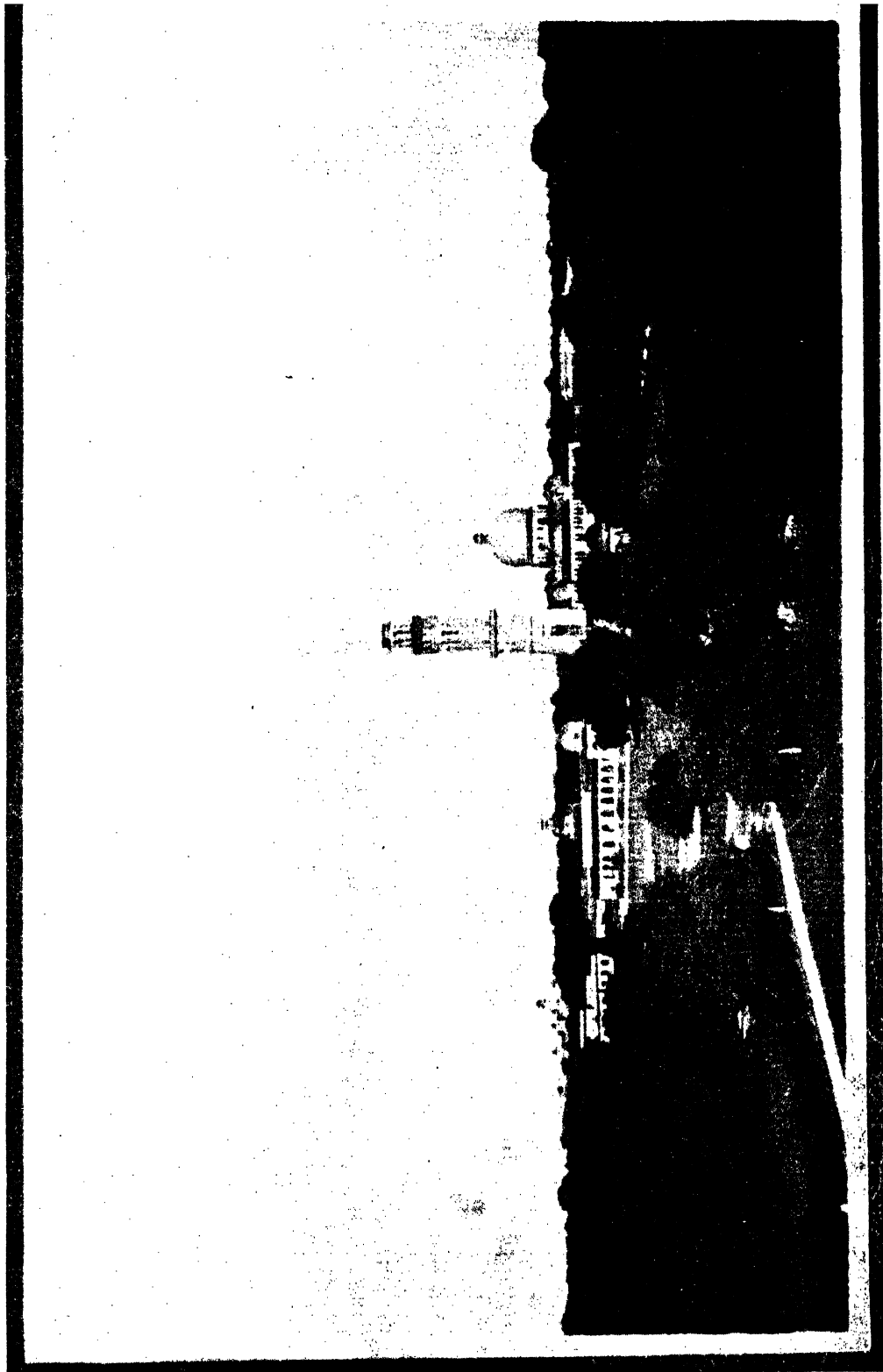
OFFICERS

Messrs. S. P. Roy, S. Zamin Ali, B. D. Puri, A. Jha, B. Chatterji, M. Haider, L. P. Marany, H. C. Kinn, R. R. Klemm,
Messrs. G. D. Katwal, J. A. Strang, Maclean, O'Donnell, Cayo, Sully, Ponder, Molan

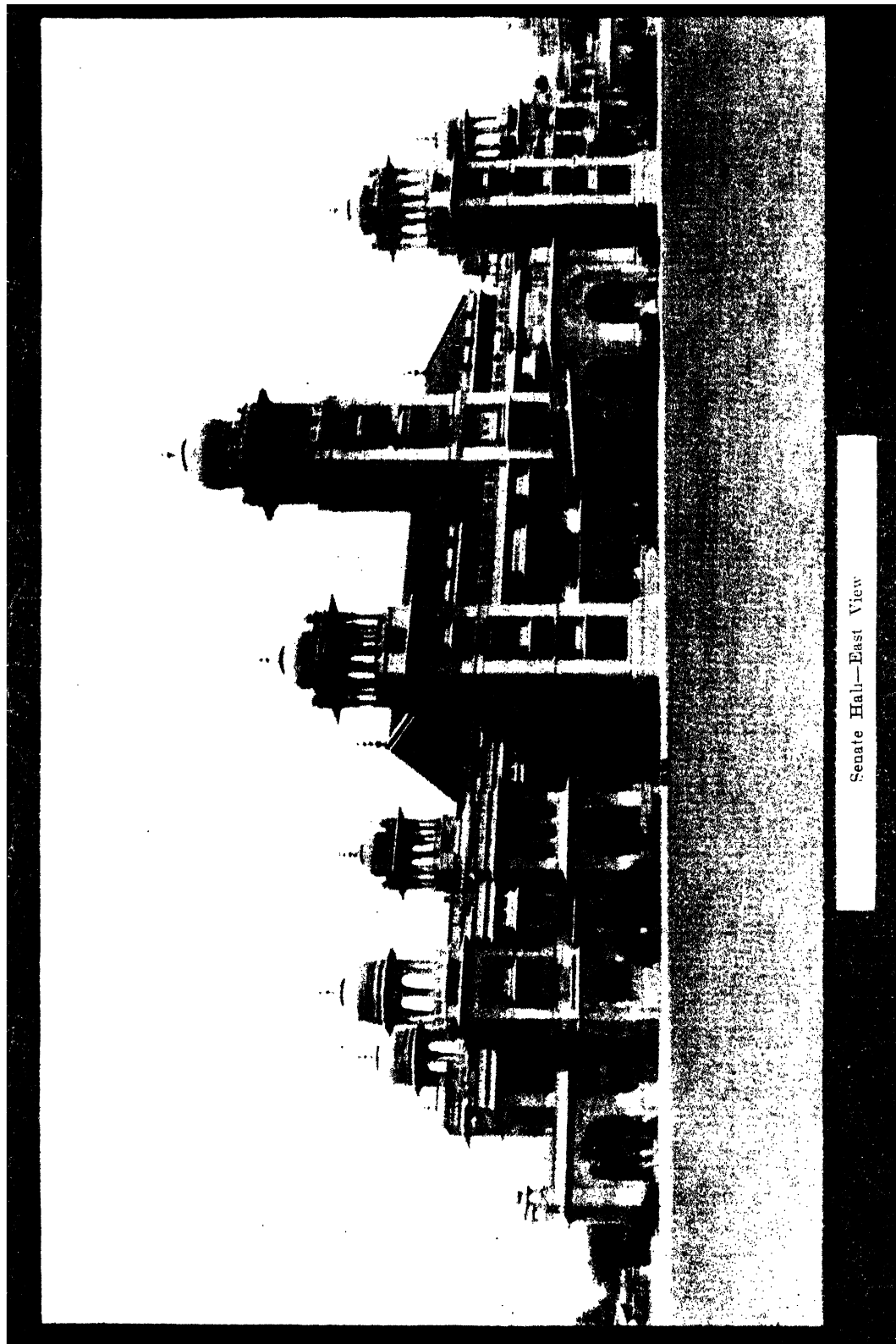
EXECUTIVE COUNCIL OF THE UNIVERSITY



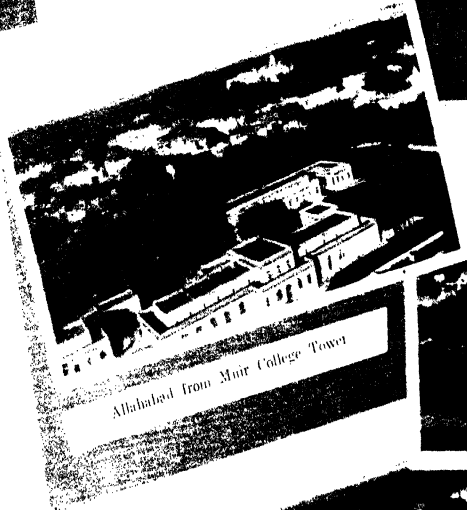
Mr. S. R. Bhargava. Mr. Justice Iqbal Ahmad. Dr. Wajidullah. Mr. A. Jha. Dr. Tara Chand, Registrar. Mr. A. C. Banerji.
 Mr. Mackenzie. Sir S. M. Sulaiman. Major Dube. Dr. J. C. Weir. Sir William Morris. Dr. Jha. Professor Dunn.
 Dr. Janvick. Mr. V. S. Tanna.
 Dr. Bhattacharya. Mr. Thompson.



Muir College—Senate House in the Distance



Senate Hall—East View



Allahabad from Muir College Tower



Allahabad from Muir College Tower



Allahabad from Muir College Tower



University Women's Hostel



History Dept., A. U. Union & Oriental Languages Dept.



A Room in the Chemistry Laboratory



A Room in the Botany Laboratory



Inside the University Library

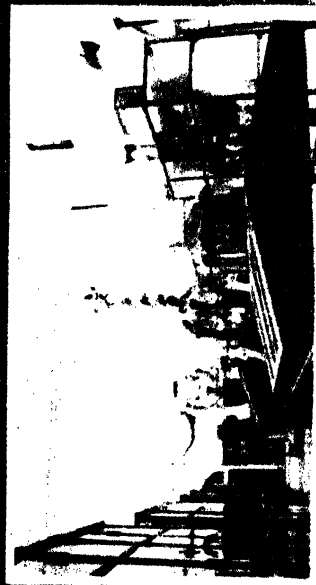




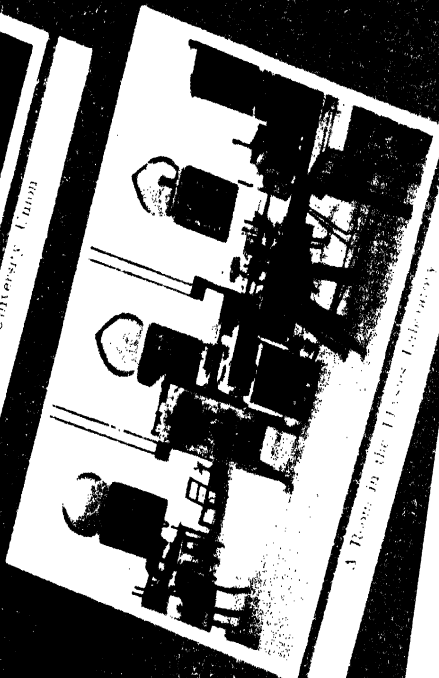
The Oriental Languages Department



The Alahabad University Union



The Zoology Museum



A Room in the Physics Laboratory



The Senate Hall



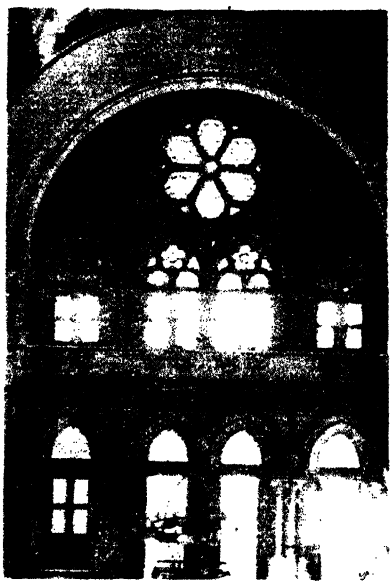
The University Library



The Senate Hall



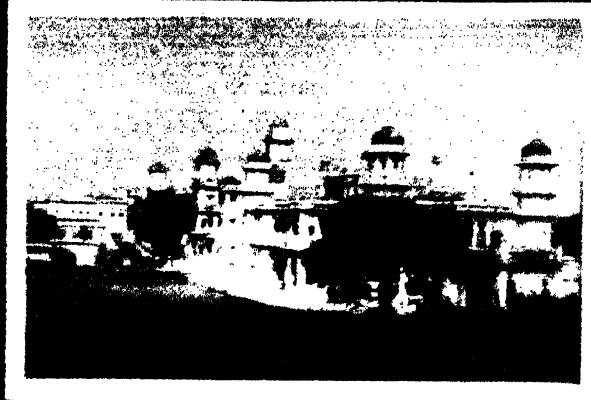
The English & Law Departments



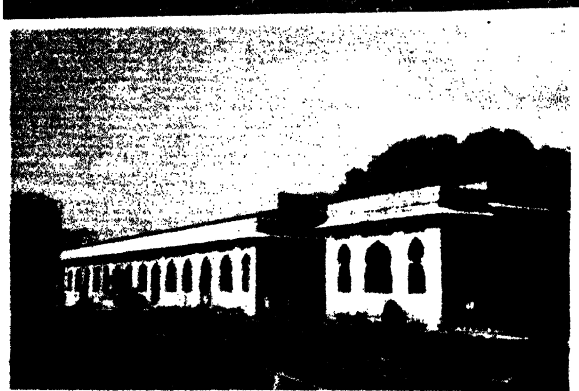
Inside the Vizianagaram Hall



Inside the Senate Hall



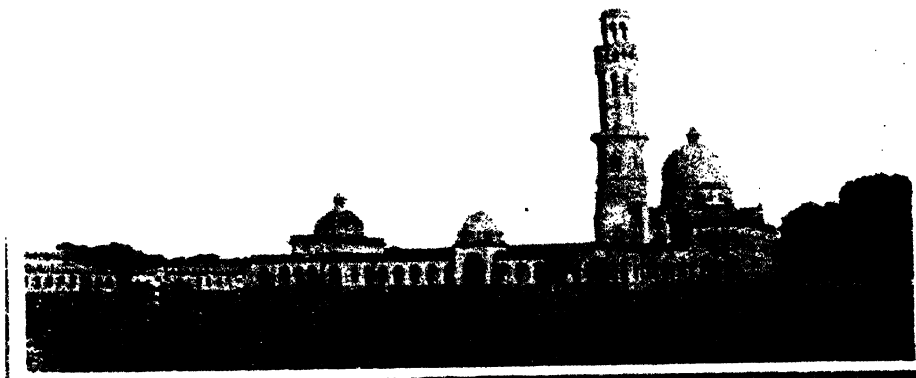
The University



The Botany Department



The Muir College Tower



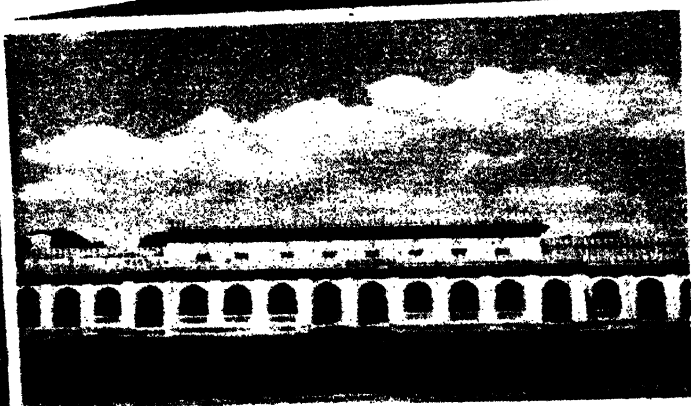
The Muir College



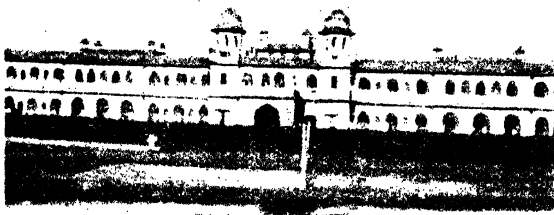
The Muir College Dome & Tower



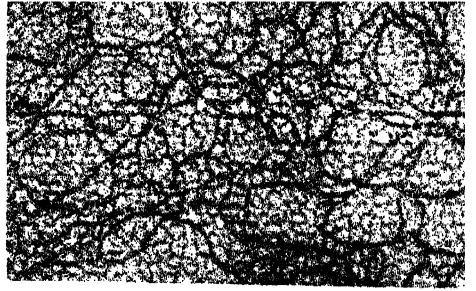
The Muir College



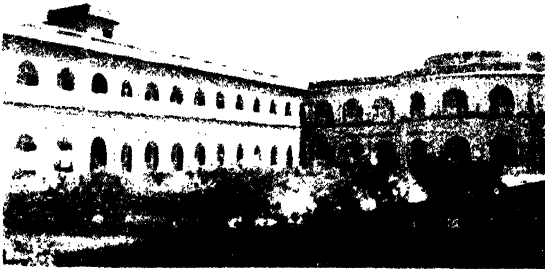
The Zoology Department



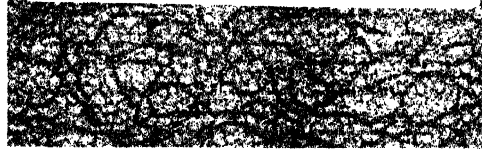
Sir Sunder Lal Hostel



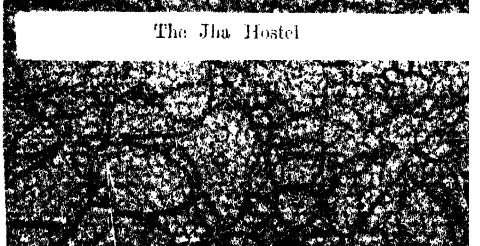
The Jain Hostel

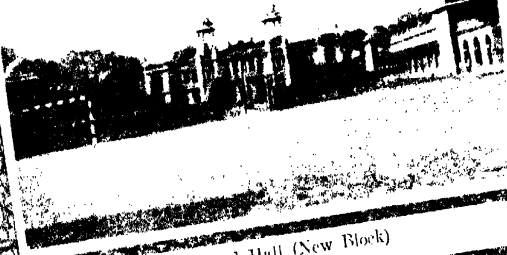


K. P. University College



The Jha Hostel

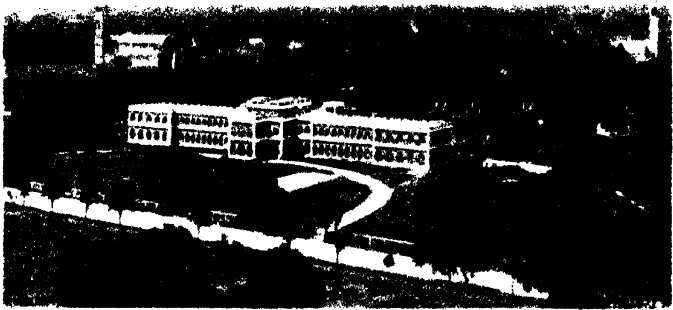




The Holland Hall (New Block)



Sir P. C. Banerji Hostel



The Hindu Hostel



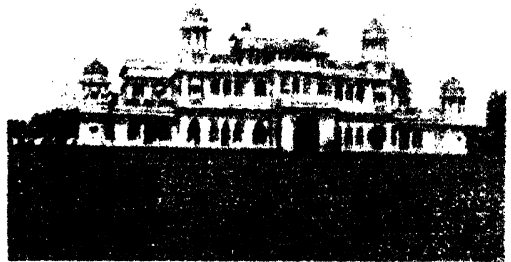
The Muir Hostel



The Holland Hall (Old Block)



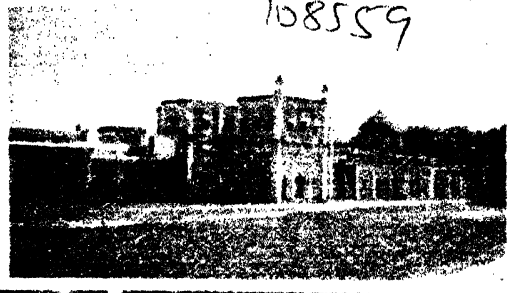
The Senate Hall



The English & Law Departments



The Chemistry Department



The Muslim Hostel



The Physics Department

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